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ABSTRACT

The relationship between adults' self-directed learning readiness (SDLR) and selected variables was examined in a study of 25 Hong Kong Chinese Baptist Churches. A Chinese version of the Self-Directed Learning Readiness Scale (SDLRS) was administered to a stratified sample of 820 adult learners and 210 youth learners, and a modified version of the SDLRS was given to 163 Sunday school teachers so that the teachers could rate the learning readiness of their students. The response rates for the adult learners, youth learners, and teachers were 58.05%, 67.62%, and 75.46%, respectively. The learners' mean rating of their SDLR was higher than the teachers' mean rating of adult learners' SDLR. Adult learners exhibited higher self-directed learning readiness scores than youth learners did. Adults' SDLR scores did not depend on gender but were positively related to education and employment levels. (Twenty tables and 10 figures are included. The bibliography lists 108 references. The following items are among those appended: attendance rates at Hong Kong Chinese Baptist churches; project-related correspondence; data on the numbers of adult Sunday school teachers; English and Chinese versions of the SDLRS; questionnaire for teachers' ratings of adult learners' self-directed learning readiness; data from the questionnaires; project abstract; and biographical information about the researcher.) (MN)

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A STUDY OF THE RELATIONSHIP BETWEEN ADULTS' SELF-DIRECTED LEARNING READINESS AND SELECTED VARIABLES IN SUNDAY SCHOOLS OF HONG KONG CHINESE BAPTIST CHURCHES

A DISSERTATION
PRESENTED TO
THE FACULTY OF THE HONG KONG BRANCH
OF THE
ASIA BAPTIST GRADUATE THEOLOGICAL SEMINARY

IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
DOCTOR OF THEOLOGY

BY

MAN-CHIU LAU CHEUNG

HONG KONG

FEBRUARY 1999

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APPROVAL SHEET

A STUDY OF THE RELATIONSHIP BETWEEN ADULTS' SELF-DIRECTED LEARNING READINESS AND SELECTED VARIABLES IN SUNDAY SCHOOLS OF HONG KONG CHINESE BAPTIST CHURCHES

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CHAPTER 1

INTRODUCTION

Since the early twentieth century, psychoanalysis and behaviorism developed as two major forces in psychology. In the early 1960s, humanistic psychology was developing, and was called the third force in psychology.[1]

In the field of education, adult education as a separate discipline also developed with two streams of inquiry. One stream might be called the scientific stream, launched by Edward L. Thorndike in 1928. His studies in *Adult Learning* showed that adults could learn. By the time of World War II, adult educators had scientific evidence that adults could learn and they possessed interests and abilities that were different from those of children. The other stream might be called the artistic stream and was concerned with how adults learn. This stream was launched by Eduard C. Lindeman in 1926 in his book *The Meaning of Adult Education*. Subsequently, the number of articles on adult learning increased.[2] Starting from the 1960s, humanism greatly influenced educators on the concept of adult learners.

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[1] Duane P. Schultz and Sydney E. Schultz, *A History of Modern Psychology*, 6th ed. (Fort Worth, Texas: Harcourt Brace College, 1996), 435.

In 1970 Malcolm Knowles integrated the above thoughts and put forward andragogy as an adult learning theory. He advocated the characteristics of adult learners as self-concept, experience, readiness to learn, and problem-centered perspective, and the implications of these characteristics for adult learning and teaching.[3] Other famous adult education theories at that time included Cyril Houle's learning orientations in 1961 and Allen Tough's learning projects in 1971.[4]

In Knowles' theory, the first characteristic of adult learner was self-concept, which meant that one saw oneself as capable of self-direction and desired others to see him or her the same way. In fact, one definition of maturity was the capacity to be self-directing.[5] Tough's learning projects also placed value on adults' self-directed learning. The predominant philosophical orientation underlying self-directed learning was humanistic in nature.[6] Valett in 1977 stated the priorities of humanistic education should include the enhancement of powers of self-direction and control.[7]

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[2] Malcolm S. Knowles, *The Adult Learner: A Neglected Species*, 4th ed. (Houston: Gulf, 1990), 28-38.

[3] Malcolm S. Knowles, *The Modern Practice of Adult Education* (New York: Association Press, 1970), 39-54.

[4] Cyril O. Houle, *The Inquiring Mind* (Madison: University of Wisconsin, 1961), 15-87; Allen Tough, *The Adult's Learning Projects*, 2d ed. (Toronto: The Ontario Institute for Studies in Education, 1979), 1-170.

In Hong Kong Chinese churches there are many Christian adults. Self-directed learning is important to their learning during spiritual pursuit.

Statement of the Problem

The problem of this study was to determine the relationship between adult learners' self-directed learning readiness and selected variables in Sunday Schools of Hong Kong Chinese Baptist churches. The selected variables were:

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[5] Knowles, *The Adult Learner*, 194.

[6] Rosemary S. Caffarella, "Self-Directed Learning," *New Directions for Adult and Continuing Education*, no. 57 (1993): 26.

[7] Roger Hiemstra and Ralph G. Brockett, "From Behaviorism to Humanism: Incorporating Self-Direction in Learning Concepts into the Instructional Design Process," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of University of Oklahoma, 1994), 65.

(a) teachers' ratings of self-directed learning readiness of adult learners; (b) youth learners' self-directed learning readiness; (c) adult learners' genders; (d) adult learners' education levels; (e) adult learners' job levels.

Sub-Problems

This study was to determine:

1. The scores on self-directed learning readiness of adult learners, youth learners, and teachers' ratings of adult learners in Sunday Schools of Hong Kong Chinese Baptist churches
2. The difference between the scores on self-directed learning readiness of adult learners' self-ratings and teachers' ratings of the adult learners in Sunday Schools of Hong Kong Chinese Baptist churches
3. The difference between the scores on self-directed learning readiness of adult learners and youth learners in Sunday Schools of Hong Kong Chinese Baptist churches
4. The difference in the scores on self-directed learning readiness across selected demographic variables such as genders, education levels, and job levels of adult learners in Sunday Schools of Hong Kong Chinese Baptist churches

Synthesis of Related Literature

Historical Overview

The origins of self-directed learning can be traced to John Dewey who proposed that all persons were born with an unlimited potential for growth and development. He saw education as a process of growth and suggested that the teacher should guide and not interfere with nor control the process of learning.[8] Eduard Lindeman and Everett Dean Martin applied Deweyan thought of continuous growth to adult autonomy in learning.[9]

The use of the term "self-educated learner" by Cyril Houle in 1957 along with the terms "self-reliant individual learner" by Paul Sheats in 1957 and "self-teaching" by Allen Tough in 1967 were recognized as similar terms which implied self-directed learners and self-directed learning.[10] The interest in self-directed learning was fostered by the work of Houle, and of Tough.[11] Tough defined a learning project as a deliberate effort to gain knowledge or skill, or to change in some other way. A learning project included a range of learning processes: classroom learning, learning guided by someone, programmed instruction, and self-planned/directed learning. His research demonstrated that self-teaching was natural among many adults.

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[8] Susan Wilcox, "Fostering Self-Directed Learning in the University Setting," *Studies in Higher Education* 21 (June 1996): 166; Amy D. Rose, "From Self-Culture to Self-Direction: An Historical Analysis of Self-Directed Learning," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 22.

[9] Rose, 23.

[10] Chija Kim Cheong, Chun Kuen Lee, and Huey B. Long, "Self-Directed Learning Readiness & Some Related Variables: A Study of Self-Educated People in Korea," in *New Dimensions*

Malcolm Knowles built his andragogical model on the basic assumption that adults were self-directing.[12] Since that time, self-directed learning has become a prominent feature of adult education theory and practice. Researchers in the 1980s, primarily replicating Tough's original study on learning projects, verified that a significant number of adults learned a

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in Self-Directed Learning, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 269.

[11] Houle, 15-87; Allen Tough, *Learning Without a Teacher: A Study of Tasks and Assistance during Adult Self-Teaching Projects* (Toronto: The Ontario Institute for Studies in Education, 1967), 3-78; Allen Tough, "Major Learning Efforts: Recent Research and Future Directions," *Adult Education* 28 (1978): 250-263; Tough, *The Adult's Learning Projects,* 1-170.

[12] Malcolm S. Knowles, *Self-Directed Learning* (New York: Association Press, 1975), 14-21; Knowles, *The Modern Practice of Adult Education,* 40.

great deal outside the control and confines of formal educational institutions.[13]

Huey Long and Gary Confessore analysed the abstracts of literature in self-directed learning. They identified 141 abstracts for the period 1966-1982 and 242 abstracts for the period 1983-1991, and found the topical distribution as follows:[14]

		1966-82	1983-91
1.	Program areas	13	56
2.	Instructional methods or techniques	35	58
3.	Institutional sponsors	1	7
4.	Personnel and staffing	0	0
5.	Education of particular clientele groups	31	95
6.	Process of program planning and administration	3	0
7.	Adult learning characteristics	69	218
8.	Learning environments	2	0
9.	Adult education as a profession	0	4
10.	Materials, devices, and facilities	9	12
11.	Miscellaneous	6	0
12.	Childhood learning	36	30

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[13] Stephen D. Brookfield, "Self-Directed Adult Learning: A Critical Paradigm," *Adult Education Quarterly* 35 (Winter 1984): 59-71; Rosemary S. Caffarella and Judith M. O'Donnell, "Self-Directed Adult Learning: A Critical Paradigm Revisited," *Adult Education Quarterly* 37 (Summer 1987): 199-211.

[14] Huey B. Long and Gary J. Confessore, *Abstracts of Literature in Self-Directed Learning 1966-1982* (Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1992), 7; Gary J. Confessore and Huey B. Long, *Abstracts of Literature in Self-Directed Learning 1983-1991* (Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1992), 6-7.

The different emphases between the abstracts in 1966-1982 and those in 1983-1991 suggested the following trends: (1) from being discursive to descriptive and conjectural, (2) from being concerned with curricula and techniques to other educational programmatic questions, (3) from instrument of measuring self-direction in learning to various psychometric instruments, (4) not restricted to either qualitative or quantitative methods, (5) broader spectrum of authors by nationality and employment setting.[15] These trends showed a progressive development in the study of self-directed learning.

Huey Long and Terrence Redding identified 173 dissertation abstracts in self-directed learning in 1966-1991 and found a steady increase from one dissertation per year in 1970-1974 to nearly twenty per year in 1985-1991. The variety of research was wide. The places of inquiry ranged across a broad spectrum from the workplace to traditional education settings. Samples included many diverse categories of socio-economic groups, age groups, and ethnic groups. The research methodology was approaching a near balance between qualitative and quantitative methods. A wide array of instruments had been used. This analysis confirmed the heterogeneity and rapid development of self-directed learning research since 1966.[16]

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[15] Long and Confessore, 13-14; Confessore and Long, 11.

The International Self-Directed Learning Symposium has been held annually since 1986. After 1988, selected papers presented at each annual symposium were published as a volume each year by Huey B. Long and Associates. Consequently, research on self-directed learning became more systematic and popular.

The Meaning of Self-Directed Learning

In the past, there was considerable confusion in the meaning of the term "self-directed learning." Huey Long summarized four conceptualizations of self-direction in learning: (1) sociological--following Tough's construct of self-instruction in a rather independent mode; (2) technical--following Knowles' instructional format of permitting the learner to determine the goals, procedures, resources, and evaluation; (3) methodological--following Verner's concept of method, for example, distance education; (4) psychological--following Long, Garrison, and Candy's emphasis on the psychological aspects of learning. The fourth concept was more challenging and presented five attributes of self-directed learners: (1) appeared more conscious of their intentions, (2) focused attention, (3) exhibited more energy in concentration and self-feedback, (4) inclined to adopt a strategy to accomplish their goals, (5) practised deep processing.[17] Garrison noticed the central notion of some personal control over the planning and management of the learning experience, hence self-directed learning should be a collaborative process between teacher and learner. Self-directed learning should be concerned with both internal and external processes. Externally, control might be shared, while internally self-directedness in constructing meaning was necessary.[18]

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[16] Huey B. Long and Terrence R. Redding, *Self-Directed Learning Dissertation Abstracts 1966-1991* (Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1991), 9-14.

Bouchard reviewed three views of self-directed learning: (1) pedagogical variable--Tough's focus on the "learning" aspects of self-directed learning projects; (2) psychological variable--Guglielmino's focus on individual's disposition; (3) systemic variable--Spear and Mocker's Organizing Circumstance as a framework for self-directed learning.[19]

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[17] Huey B. Long, "Self-Directed Learning: Smoke and Mirrors?" in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 1-7; Caffarella, "Self-Directed Learning," 25-26.

[18] D.R. Garrison, "Critical Thinking and Self-Directed Learning in Adult Education: An Analysis of Responsibility and Control Issues," *Adult Education Quarterly* 42 (Spring 1992): 140-143; Merryl Hammond and Rob Collins, *Self-Directed Learning: Critical Practice* (London: Kogan Page, 1991), 153.

Brockett and Hiemstra viewed self-direction in learning as both the external characteristics of an instructional process and the internal characteristics of the learner where the individual assumed primary responsibility for a learning experience. They distinguished between "self-directed learning" for process and "learner self-direction" for personality characteristics.[20] Candy framed four dimensions of self-direction. The first two, personal autonomy and self-management, were concerned with the goal. The last two, autodidaxy and learner control, were concerned with the process.[21]

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[19] Paul Bouchard, "Self-Directed Professional and Autodidactic Choice," in *New Ideas about Self-Directed Learning,* by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of University of Oklahoma, 1994), 131-132; George E. Spear and Donald W. Mocker, "The Organizing Circumstance Environmental Determinants in Self-Directed Learning," *Adult Education Quarterly* 35 (Fall 1984): 1-10.

[20] Ralph G. Brockett and Roger Hiemstra, *Self-Direction in Adult Learning* (London: Routledge, 1991), 24.

[21] Philip C. Candy, *Self-Direction for Lifelong Learning* (San Francisco: Jossey-Bass, 1991), 5-23.

The above views are not in opposition. They contribute collectively to our understanding of the complex phenomenon of self-directed learning.

Significance of Self-Directed Learning

Self-directed learning has become a popular topic in the past few decades. The significance can be seen in both the education and workplace settings.

In the Education Settings

Self-directed learning readiness was found to be positively related to the academic performance of various subjects.[22] Students using the self-directed learning experience found more interest and practical values than the traditional lecture-presentation or traditional program.[23] Self-directed learning was found to have a positive relationship with group empowerment,[24] and enhanced the selective use of voluntary associations.[25] Research also showed that adults could experience significant growth at midlife within an environment encouraging self-directed learning.[26]

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[22] Gary J. Hoban and Claudia J. Sersland, "Self-Directed Learning in Mathematics--An Impossibility at the Middle School?" in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 223-240; Valerie Bryan and Susan F. Schulz, "Self-Directed Learning in Distance Education: The Relationship between Self-Directed Learning Readiness Scores & Success in Completing Distance Education Programs through Home-Study Training," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 135-157; Tri Darmayanti, "Readiness for Self-Directed Learning and Achievement of the Students of Universitas Terbuka (The Indonesian Open Learning University)" (M.A. thesis, University of Victoria, 1994), abstract in *Dissertation Abstracts International* 33-04: 1061, *Dissertation Abstracts Ondisc* [CD-ROM], August 1995; Bonnie K. Wilson, "Comparison of Two Teaching Strategies for Teaching Basic Nursing Skills to

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Baccalaureate Nursing Students" (Ph.D. diss., University of Nebraska, 1992), abstract in *Dissertation Abstracts International* 53-07A: 2233, *Dissertation Abstracts Ondisc* [CD-ROM], January 1993.

[23] Gary J. Confessore and Richard W. Herrmann, "Developing Self-Efficacy among Baccalaureate Students: Pygmalion Revisited," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 169-181; Wilson, 2233.

[24] Padma B. Singh, "The Relationship between Group Empowerment and Self-Directed Learning in Selected Small Groups in Michigan" (Ph.D. diss., Michigan State University, 1993), abstract in *Dissertation Abstracts International* 54-10A: 3656, *Dissertation Abstracts Ondisc* [CD-ROM], April 1994.

[25] Patricia Portelli, "Self-Directed Learning Effects in Voluntary Associations' Organizational Framework," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 258-266.

[26] Dorothy D. Billington, "Adult Learning Can Stimulate Personal Development," *Australian Journal of Adult and Community Education* 30 (April 1990): 54-63.

In summary, self-directed learning has contributed to our understanding of learning by (1) identifying an important form of adult learning and providing us with insights into the process of learning, (2) challenging us to define the salient characteristics of adult learners, and (3) expanding our thinking about learning in formal settings.[27] Hence, study in self-directed learning would be helpful to develop curricula and practitioners skillful in guiding self-directed learners. Self-directed learning may also free up human resources that might otherwise be consumed by travel to instructional meetings.[28]

In the Workplace Settings

Numerous benefits are cited in the literature as a result of introduction of self-directed learning in the workplace.[29]

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[27] Caffarella, "Self-Directed Learning," 27.

[28] Huey B. Long, "Philosophical, Psychological, and Practical Justifications for Studying Self-Direction in Learning," in *Self-Directed Learning: Application and Research*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1992), 20.

[29] Huey B. Long and Scott S. Morris, "Self-Directed Learning in Business & Industry: A Review of the Literature, 1983-1993," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 372-375.

Employees benefited individually by being able to take charge of their own learning needs.[30] Individuals had better adjustment and increased flexibility to rapid changes.[31] They had greater satisfaction in their jobs[32] and better performance quality.[33]

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[30] William J. Kops, "Managers as Self-Directed Learners: Comparing Findings of Studies in Private and Public Sector Organizations," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 75, 85; Sharon J. Confessore and Dede Bonner, "Learning in Adversity: Incidence of Self-Directed Learning among Downsized Employees," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 97; Ingrid Wojciechowski, "Self-Directed Learning: A Tool for Management to Eliminate the Annual Performance Appraisal," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 46; Gerald A. Straka, Markus Kleinmann, and Markus Stokl, "Self-Organized Job Related Learning," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994), 157.

[31] Sharon J. Confessore and Dede Bonner, 90-98; Jay W. Gould III, "Practitioners' Application of Self-Directed Learning: Education of the Department of Defense's Program Managers under the Defense Acquisition Workforce Improvement Act," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 149; Long, "Justifications for Studying," 18-19.

[32] Gould III, 147; Wojciechowski, 47.

[33] Richard Durr, Lucy Guglielmino, and Paul Guglielmino, "Self-Directed Learning Readiness and Job Performance at

Employers likewise benefited from the implementation of self-directed learning in the workplace. Training effectiveness and efficiency were shown to improve in a facilitating self-directed learning environment.[34] Measures of one's self-directedness could be used to aid in the resolution of employee placement issues such as selection, evaluation, and promotion.[35]

Motorola," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994), 179; Deborah A. Jude-York, "Organizational Learning Climate, Self-Directed Learners, and Performance at Work" (Ph.D. diss., The Fielding Institute, 1991), abstract in *Dissertation Abstracts International* 53-07A: 2206, *Dissertation Abstracts Ondisc* [CD-ROM], January 1993.

[34] William J. Kops, "Self-Planned Learning of Managers in an Organizational Context," in *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993), 249-260; George M. Piskurich, "Evaluating Self-Directed Learning in a Business Environment," in *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993), 278-280; Katherine C. Weldon and Mindy E. Denny, "Continuous Workplace Learning: An Assessment of Learner Perceptions," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994), 190-198.

[35] Durr, Guglielmino, and Guglielmino, 183; Paul J. Guglielmino and Lawrence A. Klatt, "Self-Directed Learning Readiness as a Characteristic of the Entrepreneur," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing

Thus, self-directed learning has noteworthy significance for human resources development.[36]

Teachers' Understanding of Learners' Self-Directed Learning

Teachers should understand their students and match their teaching styles accordingly. Gerald Grow proposed the staged self-directed learning model whose abbreviated form is shown in Table 1.

Table 1. The Staged Self-Directed Learning Model

Stage	Student	Teacher
1	Dependent	Authority, Coach
2	Interested	Motivator, Guide
3	Involved	Facilitator
4	Self-directed	Consultant, Delegator

Professional and Higher Education of the University of Oklahoma, 1994), 171; Wojciechowski, 37-49; Jude-York, 2206.

[36] Daisy Diaz-Alemany, "A Naturalistic Exploratory Inquiry into the Informal Learning Strategies of Human Resource Development Professionals" (Ph.D. diss., University of Texas at Austin, 1993), abstract in *Dissertation Abstracts International* 54-12A: 4342, *Dissertation Abstracts Ondisc* [CD-ROM], June 1994; Kops, "Managers as Self-Directed Learners," 75.

Learners advanced through stages of increasing self-direction and teachers could help or hinder that development. Good teaching matched the learner's stage of self-direction and helped the learner advance toward greater self-direction.[37] This model was criticised by Mark Tennant, but was then defended by Grow.[38]

However, some teachers had difficulties in moving from teacher control to learner control. Candy suggested ways for such change.[39] Hiemstra and Brockett suggested strategies that could help to overcome instructor resistance to self-direction.[40]

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[37] Gerald O. Grow, "Teaching Learners to be Self-Directed," *Adult Education Quarterly* 41 (Spring 1991): 125-149; Ardelina Baldonado and Holly Clayton, "Coaching/ Mentoring: Implications for the Self-Directed Learner," in *New Dimensions in Self-Directed Learning,* by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 381-393.

[38] Mark Tennant, "The Staged Self-Directed Learning Model," *Adult Education Quarterly* 42 (Spring 1992): 164-166; Gerald O. Grow, "In Defense of the Staged Self-Directed Learning Model," *Adult Education Quarterly* 44 (Winter 1994): 109-114.

[39] Candy, 223-236.

[40] Roger Hiemstra and Ralph G. Brockett, "Resistance to Self-Direction in Learning Can Be Overcome," in *New Directions for Adult and Continuing Education,* no. 64 (1994): 91.

Influential Factors

Factors that affect self-directed learning include: adulthood, education level, job nature, and gender. These factors are important indicators of one's self-directed learning.

Self-Directed Learning of Adults and Youth

Knowles and others built their adult education models on the basic assumption that adults were more self-directing than children and youth.[41] Pratt and Candy described increases in self-directed learning behavior as a function of adult development.[42]

Research showed that self-directed learning readiness scores of middle school children were lower than the data of adults.[43] Adults demonstrated more self-initiation of learning projects.[44] Research on children and youth indicated that self-directed learning generally increased over time.[45] Midlife adults were attracted to self-directed learning programs.[46]

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[41] Knowles, *The Modern Practice of Adult Education*, 40; Danny L. Balfour and Frank Marini, "Child and Adult, X and Y: Reflections on the Process of Public Administration Education," *Public Administration Review* 51 (November-December 1991): 478-485.

[42] Daniel D. Pratt, "Andragogy as a Relational Construct," *Adult Education Quarterly* 38 (Spring 1988): 160-170; Candy, 45-46.

[43] Huey B. Long, Stephen K. Agyekum, and Claire Stubblefield, "Origins of Self-Directed Learning Readiness," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 4.

Self-Directed Learning and Education Level

Positive correlations between self-directed learning readiness scores and levels of education were found in numerous studies.[47] Individuals at the bachelor level had a higher mean score on self-directed learning readiness than those at the high school level.[48] The desire to learn and level of education correlated significantly with perception of self as a lifelong learner.[49] Self-directed learning readiness also had positive correlation with university students' GPA,[50] or their success in completing the degree program.[51] However, Herbeson cautioned that the regression analyses indicated that no significant amount of the variance in self-directed learning readiness could be explained by the level of formal education.[52]

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[44] Sharon J. Confessore and Gary J. Confessore, "Learner Profiles: A Cross-Sectional Study of Selected Factors Associated with Self-Directed Learning," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994), 208.

[45] Huey B. Long, Terrence R. Redding, and Gordon Eisenman, "Development of Self-Directed Learning Readiness: A Longitudinal Study," in *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993), 13; Huey B. Long, Terrence R. Redding, and Gordon Eisenman, "Longitudinal Study of Self-Directed Learning: SDLRS Scores at the 5th, 8th, and 11th Grades," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 34-36.

[46] Michael A. Beitler, "Midlife Adults in Self-Directed Learning: A Heuristic Study in Progress," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 269-279.

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[47] Gad Ravid, "Self-Directed Learning as a Future Training Mode in Organizations" (Ph.D. diss., University of Toronto, 1986), abstract in *Dissertation Abstracts International* 47-06A: 1993, *Dissertation Abstracts Ondisc* [CD-ROM], December 1986; Donald G. Roberts, "A Study of the Use of the Self-Directed Learning Readiness Scale as Related to Selected Organization Variables" (Ed.D. diss., The George Washington University, 1986), 109; Richard E. Durr, "An Examination of Readiness for Self-Directed Learning and Selected Personnel Variables at a Large Midwestern Electronics Development and Manufacturing Corporation" (Ed.D. diss., Florida Atlantic University, 1992), 87-88; Ellen Herbeson, "Self-Directed Learning and Level of Education," *Australian Journal of Adult and Community Education* 31 (November 1991): 196-201; Paul J. Guglielmino, Lucy M. Guglielmino, and Huey B. Long, "Self-Directed Learning Readiness and Performance in the Workplace," *Higher Education* 16 (1987): 316.

[48] Bryan and Schulz, 148-149.

[49] Confessore and Confessore, 223.

[50] Huey B. Long and Scott S. Morris, "The Relationship between Self-Directed Learning Readiness and Academic Performance in a Nontraditional Higher Education Program," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 146-147; Agueda G. Ogazon, "The Contribution of Self-Directed Learning Readiness to the Achievement of Junior Students at a Branch of the State of Florida University System" (Ed.D. diss., Florida

For children and youth, self-directed learning readiness also increased with education level. So the speculation that schooling suppressed students' self-directed learning was not supported.[53]

International University, 1995), abstract in *Dissertation Abstracts International* 56-12A: 4676, *Dissertation Abstracts Ondisc* [CD-ROM], June 1996; Darmayanti, 1061.

[51] Huey B. Long and Stanley W. Smith, "Self-Directed Learning Readiness and Student Success," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 195-196; Cheong, Lee, and Long, 271-275.

[52] Herbeson, "Level of Education," 200.

[53] Long, Redding, and Eisenman, "Development of Self-Directed Learning Readiness," 21-23; Huey B. Long, Terrence R. Redding, and Gordon Eisenman, "A Longitudinal Study: Social Behavior and SDLRS Scores," in *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994), 43-45; Long, Redding, and Eisenman, "SDLRS Scores at the 5th, 8th, and 11th Grades," 27-34.

Self-Directed Learning and Job Nature

Learning in an organization often took place through informal learning on the job.[54] Positive relationship was found between self-directed learning and job performance ratings.[55] Self-directed learners tended to outperform others in jobs requiring high degrees of problem-solving ability, creativity, and change.[56] They had higher confidence on the job and greater success in self-paced instruction.[57] Successful entrepreneurs and people at higher levels of management indicated higher readiness for self-directed learning.[58]

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[54] Pao-Feng Lo, "Understanding Learning in Organizations: A Case Study in Taiwan" (Ph.D. diss., University of Wisconsin, 1996), abstract in *Dissertation Abstracts International* 57-04A: 1440, *Dissertation Abstracts Ondisc* [CD-ROM], October 1996.

[55] Paul J. Guglielmino, Lucy M. Guglielmino, and Shuming Zhao, "A Preliminary Study of Self-Directed Learning Readiness in the People's Republic of China," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 133-135; Durr, Guglielmino, and Guglielmino, 179; Paul J. Guglielmino and Donald G. Roberts, "A Comparison of Self-Directed Learning Readiness in U.S. and Hong Kong Samples and the Implications for Job Performance," *Human Resource Development Quarterly* 3, (Fall 1992): 268-270; Jude-York, 2206.

[56] Durr, 78-87; Guglielmino, Guglielmino, and Long, "Performance in the Workplace," 313-315.

[57] Lynn Z. Baxter, "The Association of Self-Directed Learning Readiness, Learning Styles, Self-Paced Instruction, and Confidence to Perform on the Job" (Ph.D. diss., University of North Texas, 1993), abstract in *Dissertation Abstracts International* 54-08A: 2920, *Dissertation Abstracts Ondisc* [CD-ROM], February 1994.

Self-Directed Learning and Gender

In the area of self-directed learning and gender, there were different research results. One set suggested that the self-directed learning readiness of females was higher than that of males.[59] The other set indicated no effect of genders.[60]

The researcher considers that Chinese women are more conservative than western women. So Chinese women may not be more self-directing than men.

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[58] Guglielmino and Klatt, 168-169; Guglielmino and Roberts, "Self-Directed Learning Readiness in U.S. and Hong Kong Samples," 266-267.

[59] Long and Morris, "Self-Directed Learning Readiness and Academic Performance," 149; Cheong, Lee, and Long, 275; Lucy M. Guglielmino, "An Examination of Self-Directed Learning Readiness and Selected Demographic Variables of Top Female Executives," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 12.

[60] Bryan and Schulz, 148; Roberts, 105; Lugenia D. Young, "The Relationship of Race, Sex, and Locus of Control to Self-Directed Learning" (Ph.D. diss., University of Georgia, 1985), abstract in *Dissertation Abstracts International* 46-07A: 1886, *Dissertation Abstracts Ondisc* [CD-ROM], January 1986.

Enhancement of Self-Directed Learning

The enhancement of self-directed learning can be discussed from four aspects: learners, instructors, methods of instruction, and institutions. Each aspect plays a significant role in the accomplishment of self-directed learning.

Learners should first have an increased awareness of themselves as self-directed learners.[61] Resistance to self-directed learning was often due to low confidence and poor self-concept. Hrimech, and Hiemstra and Brockett outlined a number of strategies for learners to improve in self-directed learning.[62] Specifically in spiritual pursuit, the adults could find for themselves the objectives, means, resources of spiritual growth, and could organize, plan, and delimit their spiritual search.[63]

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[61] Lucy M. Guglielmino and Paul J. Guglielmino, *The Learning Preference Assessment* (King of Prussia, Pennsylvania: Organization Design and Development, 1991), 9.

[62] Mohamed Hrimech, "Some Self-Regulated Learning Strategies Utilized by Advanced Adult Learners," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 92-95; Hiemstra and Brockett, "Resistance to Self-Direction," 90-91.

[63] Rene Bedard, "A New Reality to be Fostered by Self-Directed Learning: The Adult Spiritual Experience," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and

The instructors should transform the student-teacher relationship, changing their roles from teachers to facilitators, from experts to co-learners.[64] They had to help learners take responsibility for self-directed learning. Hiemstra proposed a list of seventy-eight microcomponents pertaining to the teaching and learning process where learners could assume some control. He and Brockett also gave thirteen strategies that helped to overcome instructor resistance to self-direction.[65] The instructors also had to counsel adult learners to prepare for self-directed learning.[66]

Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 130,132.

[64] Susan B. Slusarski, "Enhancing Self-Direction in the Adult Learner: Instructional Techniques for Teachers and Trainers," in *New Directions for Adult and Continuing Education,* no. 64 (1994): 72-73; Patricia Cranton, "Self-Directed and Transformative Instructional Development," *Journal of Higher Education* 65 (November-December 1994): 737-738.

[65] Roger Hiemstra, "Helping Learners Take Responsibility for Self-Directed Activities," in *New Directions for Adult and Continuing Education,* no. 64 (1994): 84-87; Hiemstra and Brockett, "Resistance to Self-Direction," 91.

[66] Judith K. Dejoy and Richard Herrmann, "Counseling Adults for Academic and Technological Self-Directed Learning: Emotional Dimensions," in *Emerging Perspectives of Self-Directed Learning,* by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993), 161-173.

Caffarella summarized the self-directed learning models of instruction posited by Knowles, Hiemstra and Sisco, Grow, Hammond and Collins, and Candy.[67] More recent research demonstrated the group models: cohort model, small group-centered teaching, and self-help groups.[68] Other research models included self-directed readiness training program, problem-based learning, and educational planning contract.[69]

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[67] Caffarella, "Self-Directed Learning," 30-31.

[68] Virginia O. Jenks, William J. Haney, and Kathryn H. Clark, "Ways in Which the Cohort Model Influences Self-Directed Learning," in *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1996), 229-240; Ji W. Cheong and Huey B. Long, "Small-Group-Centered Teaching & Its Effect on Students' Readiness for Self-Directed Learning: A Case Study of a Korean University Course," in *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1995), 257-266; Claudia M. Dewane, "Self-Help Groups and Adult Learning" (D.Ed. diss., Pennsylvania State University, 1993), abstract in *Dissertation Abstracts International* 54-12A: 4331, *Dissertation Abstracts Ondisc* [CD-ROM], June 1994.

[69] Don L. Robishaw, "From Resistance to Persistance? An Alternative Self-Directed Readiness Training Program for Adult Literacy and Adult Basic Education Learners" (Ed.D. diss., University of Massachusetts, 1996), abstract in *Dissertation Abstracts International* 57-02A: 552, *Dissertation Abstracts Ondisc* [CD-ROM], August 1996; John A. Wood, "The Impact of Problem-Based Learning upon Beginning Teachers' Self-Directed Learning Orientation" (M.Ed. thesis, University of New Brunswick, 1995), abstract in *Dissertation Abstracts International* 34-02: 513, *Dissertation Abstracts Ondisc* [CD-

Some proposed models were cooperative education program, self-directed learning model, and personal responsibility orientation model.[70] In general, the instruction method should encourage learner control, develop inquiry skills and attitudes, and train learners in self-directed learning techniques.[71]

Besides, the institutions should place a high value in human resources development. They should reduce deterrents to participation and offer conducive environments to self-directed learning.[72]

ROM], April 1996; Greg Ryan, "Student Perceptions about Self-Directed Learning in a Professional Course Implementing Problem-Based Learning," *Studies in Higher Education* 18 (1993): 53-63; Reed Coughlan and Crystal Scriber, "Enhancing Self-Direction: An Analysis and Assessment of Motivation and Ability," in *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993), 182-185.

[70] Frances Ricks, "Principles for Structuring Cooperative Education Programs," *Journal of Cooperative Education* 31 (Winter-Spring, 1996): 8-22; Terry Simpson, "Catering for Adult Learners," *Australian Journal of Adult and Community Education* 35 (July 1995): 95-98; Hiemstra and Brockett, "From Behaviorism to Humanism," 72-73.

[71] Cranton, "Self-Directed and Transformative Instructional Development," 735-736; Morris B. Fiddler, "Teaching to Competence: Enhancing the Art of Teaching Adults," *Journal of General Education* 43 (December 1994): 302-303; Bryan and Schulz, 154.

[72] Hiemstra and Brockett, "Resistance to Self-Direction," 91; Joanne M. Wood, "An Exploration of Adult Perception of

Significance of the Study

This study was designed to find out the difference of self-directed learning readiness scores between adult learners' self-ratings and teachers' ratings of the adult learners. An incorrect estimate of adult learners' self-directed learning by teachers will result in ineffective teaching. Teachers should know their students and hence match their instructional approaches with students' self-directed learning readiness. This study should make an impact on teachers so that they will improve their understanding of adult learners and improve their teaching methods.

This study will provide information regarding the learning characteristics of Hong Kong Chinese adults. The majority of research on self-directed learning has been done in western countries. Only two researches were done on Chinese people, namely, employees in Hong Kong Telephone Company in 1983

Deterrents to Participation and Self-Directed Learning Readiness" (Ed.D. diss., University of Tennessee, 1994), abstract in *Dissertation Abstracts International* 55-07A: 1800, *Dissertation Abstracts Ondisc* [CD-ROM], January 1995; Simpson, "Catering for Adult Learners," 96; Nancy C. McDonald, "A Critical Thinking/Learning Model for Educating Adults" (Ed.D. diss., Auburn University, 1993), abstract in *Dissertation Abstracts International* 54-02A: 402, *Dissertation Abstracts Ondisc* [CD-ROM], August 1993.

and managers in Nanjing in 1992-1994.[73] However, Nanjing people are culturally different from Hong Kong people. This study on Chinese Christian adults in Hong Kong is unique.

Previous testing on the self-directed learning readiness of adults and youth was done mostly in separate researches, with the instruments Self-Directed Learning Readiness Scale-Form A (SDLRS-A) for adults and Self-Directed Learning Readiness Scale-Form E (SDLRS-E) for youth.[74] In this study, the researcher will use the SDLRS-A for these two samples for comparison as suggested by L.M. Guglielmino.[75] This method is a new attempt to find out the difference in self-directed learning readiness between adults and youth.

The negative concept of adults' declining learning attitudes with age is common among Chinese people. Thus the information that adults can be self-directing in learning will help the Chinese Christian adults, teachers, and churches to change their negative stereotype of adult learners.

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[73] Roberts, 80-83; Guglielmino, Guglielmino, and Zhao, 130.

[74] SDLRS-A is for general adult population and SDLRS-E is for children with age under 10. In the research by Long, Redding, and Eisenman in 1993 and 1995, they used SDLRS-E because the subjects tested were at the 5th, 8th and 11th Grades.

[75] Lucy M. Guglielmino, (Personal Communication, 1997).

The variation of self-directed learning readiness with one's demographic variables will help teachers to understand the different degrees of self-directed learning readiness of different learners. Such understanding implies that a teacher has to vary the teaching methods according to individual learners.

The recognition of the potentiality of self-directed learning implies that the Chinese churches should promote self-directed learning. The synthesis of related literature has already mentioned some models of enhancing self-directed learning which the Chinese churches can adopt and hence develop their human resources.

Finally, previous research revealed that the self-directed learning readiness mean scores of Chinese samples were lower than those of similar samples in the United States, and self-directed learning readiness might vary among cultures.[76] Besides a cultural difference, the education policies and system in Hong Kong are also different from those in the United States. The spoon-feeding style of teaching in Hong Kong schools has hindered self-directed learning since childhood. This study will reveal if the self-directed learning readiness scores of Hong Kong Chinese are lower than those of Americans and suggest further research on the causes.

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[76] Guglielmino, Guglielmino, and Zhao, 135-136.

Hypotheses

1. In Sunday Schools of Hong Kong Chinese Baptist churches, there is significant difference between the self-directed learning readiness scores of adult learners' self-ratings and teachers' ratings of the adult learners.

2. In Sunday Schools of Hong Kong Chinese Baptist churches, adult learners exhibit higher self-directed learning readiness scores than youth learners.

3. In Sunday Schools of Hong Kong Chinese Baptist churches, there is no significant difference in self-directed learning readiness scores between male and female adult learners.

4. In Sunday Schools of Hong Kong Chinese Baptist churches, there is a positive relationship between adult learners' self-directed learning readiness scores and education levels.

5. In Sunday Schools of Hong Kong Chinese Baptist churches, there is a positive relationship between adult learners' self-directed learning readiness scores and job levels.

CHAPTER 2

METHOD

Population

The population considered for this study included the attendants of Sunday Schools and teachers of adult Sunday Schools of Hong Kong Chinese Baptist churches. The 1996 Annual Report of the Hong Kong Baptist Convention provided the Sunday School average attendance per week in Hong Kong Baptist churches.[77] Ngau Chi Wan Chuk Yuen Swatow Baptist Church amended its number to be 78. Therefore the Sunday School average attendance per week in 1996 in Hong Kong Chinese Baptist churches was 7,954 (appendix A).

In July 1997, letters (appendix B) were sent to all Hong Kong Chinese Baptist churches concerning the number of classes, teachers, and students of their adult Sunday Schools, and this was followed up by telephone reminders. Reply slips were gathered and this was followed up by telephone clarification with the Sunday School director of each church. The number of teachers of adult Sunday Schools from August 1996 to July 1997 of Hong Kong Chinese Baptist churches was 508 (appendix C)

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[77] "Statistics of the Ministry in Each Church of The Baptist Convention of Hong Kong in 1996," in *The Baptist Convention of Hong Kong Annual 1996* (in Chinese) (Hong Kong: The Baptist Convention of Hong Kong, 1997), 142-143.

Sampling

According to John Curry's sample size rule of thumb, the sample size for a population of 5,001-10,000 was 3%, and the sample size for a population of 101-1,000 was 10%.[78] So 3% of the Sunday School average attendance 7,954 was 238, and 10% of the adult Sunday School teachers 508 was 51.

The stratefied sampling method was used. The Sunday School average attendance per week of Hong Kong Baptist churches was arranged in descending order (appendix A). This list was stratefied into three approximately equal portions with 2,651 persons in each. Portion A was from church number 1-3, portion B from church number 4-17, and portion C from church number 18-64. Each portion required altogether 79 adult and youth learners as samples.

However, in order to increase the sample size and taking into consideration the return rate of questionnaires, 900 questionnaires were given to churches. Since adult learners were the major sample, 720 questionnaires were for adult learners and 180 questionnaires were for youth learners. So each portion was given 240 questionnaires for adult learners and 60 questionnaires for youth learners. Two churches were required from portion A, five churches from portion B, and seven churches from portion C.

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[78] Rick Yount, *Research Design and Statistical Analysis for Christian Ministry* (Fort Worth, Texas: Southwestern Baptist Theological Seminary, 1990), 43.

The number of adult Sunday School teachers of Hong Kong Chinese Baptist churches was also arranged in descending order (appendix C). This list was stratefied into three approximately equal portions (portions D, E, and F) with about 169 teachers in each. Taking into consideration the return rate of questionnaires, 136 questionnaires were given to churches, with about 45 questionnaires in each portion. All churches who participated in filling in the learner questionnaires would also fill in the teacher questionnaires. Besides, some more churches were invited to fill in the teacher questionnaires in order to make up the total number of 136 questionnaires.

Instruments

Two instruments were used for collecting the research data. The Chinese version of Self-Directed Learning Readiness Scale-Form A (SDLRS-A) (appendix G) was used for learner's self-rating of one's self-directed learning readiness. Then the learner questionnaire was modified to become the teacher's rating scale on his or her adult students' self-directed learning readiness (appendix H).

The Original Self-Directed Learning Readiness Scale

The Self-Directed Learning Readiness Scale (SDLRS) is to date the most widely used instrument for assessing self-direction in learning. It has been used in over 150 research projects, including more than 50 doctoral dissertations. More than 40,000 adults and 5,000 children have taken the SDLRS. The adult form of the instrument has been translated into nine languages.[79]

Lucy M. Guglielmino developed the SDLRS in her dissertation in 1977. She invited fourteen experts on self-directed learning to participate in a three-round Delphi survey to obtain a consensus on the important characteristics of highly self-directed learners. These characteristics formed the basis for the creation of the original 41-item, Likert formatted survey. Eight characteristics were identified by factor analysis of the instrument describing the self-directed learner: 1) openness to learning opportunities, 2) self-concept as an effective learner, 3) initiative and independence in learning, 4) informed acceptance of responsibility for one's own learning, 5) love of learning, 6) creativity, 7) future orientation, and 8) problem solving skills. Guglielmino administered the instrument to 307 subjects in Georgia, Virginia, and Canada. She then revised the instrument to its present 58-item format SDLRS-A (appendix D) for general adult population.[80] Later, she developed three more forms: 1) SDLRS-ABE for adults with low reading levels or non-native English speakers, 2) SDLRS-E for children, and 3) SDLRS-S, the Learning Preference Assessment, a self-scoring version of the SDLRS-A.

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[79] Lucy M. Guglielmino, (Personal Communication, 1997); Guglielmino and Klatt, 165.

Guglielmino reported a Cronbach-alpha reliability coefficient of 0.87 for the initial version of the SDLRS and for the expanded 58-item version. A reliability estimate of the SDLRS based on a varied sample of 3,151 individuals was 0.94 (split-half Pearson product moment correlation with Spearman-Brown correction).[81] A number of other studies have provided support for the reliability of the SDLRS.[82]

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[80] Scott S. Morris, "Item Analysis of Guglielmino's Self-Directed Learning Readiness Scale: Revisiting the Issue of Internal Consistency," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 196-197; Lucy M. Guglielmino, "Development of the Self-Directed Learning Readiness Scale" (Ed.D. diss., University of Georgia, 1977), 28-77.

The validity of the SDLRS included its content validity; construct validity, convergent validity, and divergent validity. Content validity of the SDLRS was supported by the basis of expert opinion in the developmental process of the SDLRS. Construct validity was supported by a number of researches since 1981. In 1991, McCune and Guglielmino applied Schmidt and Hunter's validity generalization model to the studies conducted by Graeve, Hassan, Skaggs, Hall-Johnsen, and Finestone. The results of this analysis provided strong support for the construct validity of the instrument.[83] Jones and Jude-York reported findings supporting the convergent validity.[84] A study by Russell supported the divergent validity.[85] In addition to individual studies, a meta-analytic study of twenty-nine research studies using the SDLRS supported both the convergent and divergent validity of the SDLRS.[86]

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[81] Lucy M. Guglielmino, "Reliability and Validity of the Self-Directed Learning Readiness Scale and the Learning Preference Assessment," in *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates (Norman: Public Managers Center, College of Education, University of Oklahoma, 1997), 210-211.

[82] Morris, 203-204; Brian L. Delahaye and Heather E. Smith, "The Validity of the Learning Preference Assessment," *Adult Education Quarterly* 45 (Spring 1995): 168; Huey B. Long, "Item Analysis of Guglielmino's Self-Directed Learning Readiness Scale," *International Journal of Lifelong Education* 6 (October-December 1987): 331-336; Ralph G. Brockett, "Methodological and Substantive Issues in the Measurement of Self-Directed Learning Readiness," *Adult Education Quarterly* 36 (Fall 1985): 19.

[83] Sandra L. McCune and Lucy M. Guglielmino, "The Validity Generalization of Guglielmino's Self-Directed Learning Readiness

More recently, Delahaye and Smith reported a positive correlation between the Learning Preference Assessment and student preference for an andragogical orientation in learning as

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Scale," in *Self-Directed Learning: Consensus and Conflict,* by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1991), 147-154.

[84] Carol J. Jones, "A Study of the Relationship of Self-Directed Learning Readiness to Observable Behavioral Characteristics in an Adult Basic Education Program" (Ed.D. diss., University of Georgia, 1989), abstract in *Dissertation Abstracts International* 50-11A: 3446, *Dissertation Abstracts Ondisc* [CD-ROM], May 1990; Jude-York, 2206.

[85] Jan W. Russell, "Learning Preference for Structure, Self-Directed Learning Readiness, and Instructional Methods" (Ph.D. diss., University of Missouri, 1988), abstract in *Dissertation Abstracts International* 49-07A: 1689, *Dissertation Abstracts Ondisc* [CD-ROM], January 1989.

[86] Sandra McCune, Lucy M. Guglielmino, and Gonzalo Garcia, Jr., "Adult Self-Direction in Learning: A Meta-analytic Study of Research Using the Self-Directed Learning Readiness Scale," in *Advances in Research and Practice in Self-Directed Learning,* by Huey B. Long and Associates (Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1990), 145-156.

measured by the Student's Orientation Questionnaire.[87] Morris' findings supported the instrument's internal consistency as evidenced by item-total correlation.[88] Overall, the validity studies have supported the SDLRS as an appropriate instrument for measuring self-directed learning readiness.

The Chinese Version of Self-Directed Learning Readiness Scale

The original SDLRS-A English version was revised in Hong Kong (appendix E) and was translated into Chinese (appendix F) in the research by Roberts in 1983.[89] The researcher obtained permission from Lucy M. Guglielmino to use the Chinese translation, with copyright information printed on the questionnaires. However, the researcher found a number of imperfections in the translation used by Roberts and had to improve the translation to better fit the original English meaning. The translation was thoroughly checked with the help of some friends who were trained and competent in Chinese, English, and translation. Twenty-one items were carefully improved in the revised translated version (appendix G).

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[87] Delahaye and Smith, "Validity of the Learning Preference Assessment," 159-173.

[88] Morris, 195-207.

[89] Roberts, 78-80, 138-142, 147-150.

After the 58 questions of the original SDLRS, the following six questions on demographic variables were added to the questionnaire:

1. Question 59: Gender

2. Question 60: Age--The youth learners were given two choices: 12-15 and 16-20. The adult learners were given five choices: 21-29, 30-39, 40-49, 50-59, 60 or above.

3. Question 61: Being Christian--Respondents were asked to indicate whether they were Christians or not. If they were Christians, they were asked to fill in their number of years as Christians.

4. Question 62: Education Level--Respondents were asked to indicate their education levels which they were studying or they had completed. The five choices were primary, secondary, postsecondary, university, and postgraduate.

5. If the respondents were of age 21 or above, they were asked to fill in Questions 63 and 64. Question 63 was occupation. Respondents were asked to write down their occupations.

6. Question 64: Position in one's occupation--Respondents were asked to write down their positions in their occupations.

From the answers to questions 63 and 64, the researcher would decide the respondent's job level in the context of Hong Kong society. The job levels were classified as low, middle, and high. Although the adult learners' answers to questions 60-61 and the youth learners' answers to questions 59-62 were not directly used in the hypotheses, they did provide useful information about the characteristics of the adult learners and youth learners.

The Teacher Questionnaire

The revised Chinese version of SDLRS was modified. The first person "I" or "me" was changed to "the learners." The second clause in each response was omitted. This modified scale became the teacher's rating scale of the adult learners' self-directed learning readiness and was the teacher questionnaire (appendix H). The teacher had to rate the average score of the whole class he or she was teaching.

In the teacher questionnaire, the following four demographic questions were added:

1. Question 59: Respondents were asked to fill in the number of years they have been teaching adult Sunday Schools.

2. Question 60: Respondents were asked to indicate whether or not they had received adult Sunday School teacher training. If

they had received other kinds of teacher training, they would fill in the information. The researcher originally intended that the respondents could fill in broader types of teacher training such as studies in a school of Education.

3. Question 61: Respondents were asked to indicate whether or not they knew Malcolm Knowles' adult education theory. Knowles' Theory included self-directed learning as one of adults' learning characteristics, and Knowles' Theory was most frequently mentioned in recent adult education books available in Hong Kong. So teachers who had read recent adult education text books should know this theory.

4. Question 62: Respondents were asked to list the names of some adult educators other than Malcolm Knowles. The answer would reveal their knowledge of famous adult educators. Although the teachers' answers to questions 59-62 were not directly used in the hypotheses, they did provide useful information about the characteristics of the teachers.

Limitations to the Study

1. The sampling was limited to a stratefied sampling since random samples were unavailable.

2. The study was limited to selected Chinese Baptist churches in Hong Kong. The results could not be compared to churches in other denominations. Therefore, this study might have internal validity, but lack external validity.

3. The scores derived from the administration of the SDLRS were limited by the use of a self-report instrument. An individual could give what he or she perceived to be the desired response.

4. The study was limited by a systemic bias that Chinese people are more reserved in filling in questionnaires. Therefore, the return rate might be less than expected.

5. The return rate was limited by the fact that the questionnaire was too long to be filled in immediately in the church, therefore the learners or teachers had to take the questionnaires home and then return them next week. Since some respondents might forget to fill in the questionnaires at home or forget to bring them back to the church the following week, the return rate might be lower than expected.

6. The response of older adult learners was limited by their deficiency in eyesight or education to understand the questionnaires. They could not answer the questionnaires. So most churches could not distribute the questionnaires to the older adult Sunday School classes.

Definition of Terms

Learning

Learning refers to the result of an individual deliberately undertaking an experience with the intent to gain and retain certain definite knowledge and skills.[90]

Self-Directed Learning (SDL)

Although there are various aspects of self-directed learning, this study adopts Guglielmino's definition as follows:

> Self-direction in learning refers to the degree to which a person prefers to be independent and direct his or her own learning activities. The degree of independence in any given learning situation will vary from teacher- or trainer-directed classroom learning settings to self-planned and self-conducted learning projects. Although some learning situations are more conducive to self-direction than others, it is the personal characteristics of the learner, including his or her attitudes, values, and abilities, that ultimately determine whether self-directed learning will take place. A person who prefers a self-directed approach more often chooses or influences the learning objectives, activities, resources, priorities, and levels of energy expended than does someone who is more other-directed or who prefers the direction of teachers, trainers, or others.[91]

Self-Directed Learning Readiness (SDLR)

Self-directed learning readiness points to the level at which an individual is prepared to participate in carrying on self-directed learning. The measurement of the level is derived from a score that is achieved as the result of the administration of the Self-Directed Learning Readiness Scale developed by Lucy M. Guglielmino.

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[90] Tough, *The Adult's Learning Projects*, 1-16.

[91] Guglielmino and Guglielmino, 7.

Youth

Youth are persons at the age of 12 to 20.

Adult

Adults are persons at the age of 21 or above.

Assumptions of the Study

1. A basic assumption of the study was that the subjects would respond truthfully to the items on the SDLRS.

2. A basic assumption of the study was that the researcher's revised Chinese translated version adequately represented the questions comprising the original English version of the SDLRS.

3. People at the age of 21 or above were considered adults capable to be tested for adult learning characteristics. This age is also the age when Hong Kong people can assume autonomy in marriage without parent's signature in their marriage certificates.

Procedure for Collecting Data

Preparation

1. The researcher requested the Executive Director of Hong Kong Baptist Convention and her supervisor to give her recommendation letters (appendix I) to be sent to the churches involved in this survey.

2. From the reply slips of Hong Kong Chinese Baptist churches on the number of learners and teachers in their adult Sunday Schools, the researcher classified which churches had the suitable number of current youth learners, adult learners, and adult Sunday School teachers for the survey.

3. Permission was sought from the pastor and the Sunday School director of each of the selected Baptist churches by personal contact through telephone and letter. The researcher explained to them the significance and administration of the survey, and requested the Sunday School director to help distribute and collect the questionnaires.

4. Two churches declined to conduct the survey because of the busy schedule in the following few months. Other churches were requested as replacement. Permission was obtained from the selected churches to conduct the survey.

5. The researcher discussed with the Sunday School directors about the number of questionnaires (for youth learners, for adult learners, and for teachers) to be sent to their churches.

6. Two churches from portion A, five churches from portion B, and seven churches from portion C were invited to distribute the learner questionnaires and teacher questionnaires. Four churches from portion D, seven churches from portion E, and eleven churches from portion F were invited to distribute the teacher questionnaires.

7. The adult questionnaires, youth questionnaires, and teacher questionnaires were printed with different colours.

8. Letters were prepared for Sunday School directors to explain the administration of the survey. There were two kinds of letters: (1) a letter for churches distributing the learner questionnaires and teacher questionnaires (appendix J), (2) a letter for churches distributing the teacher questionnaires only (appendix K).

9. Letters were prepared for adult Sunday School teachers (appendix L). The letter was clipped together with each teacher questionnaire.

10. Letters were prepared for Sunday School teachers who would distribute learner questionnaires (appendix M). Filling in

the questionnaire would require about twenty-five minutes. The teachers might give time for the learners to fill in the questionnaires in class, or let them fill in at home and return the answers to the teachers the next week. If the learners forgot to fill in the questionnaires, they could return the answers to the teachers in the coming week.

Data Collection

1. In October 1997, the researcher sent the questionnaires, letters to Sunday School directors, letters to adult Sunday School teachers, and letters to teachers who would distribute learner questionnaires, to each of the participating churches. Most of the material was personally delivered by the researcher although a few letters and questionnaires were mailed to certain churches.

2. In some churches, the researcher was able to meet the assistant pastors in charge of Sunday Schools. Then the researcher could explain more clearly to them about the administration of the survey and request them to try their best.

3. The number of learner questionnaires and teacher questionnaires sent to participating churches is listed in Table 2 and Table 3 respectively.

4. About three weeks later, the researcher telephoned the Sunday School directors of the participating churches to inquire about the response rates and asked the Sunday School directors to encourage more responses.

Table 2. Number of Learner Questionnaires Sent to Participating Churches in October 1997

Portion	Church	No. of Adult Learner Questionnaires	No. of Youth Learner Questionnaires
A	Kowloon City Baptist Church	140	30
	Tsimshatsui Baptist Church	100	30
	Subtotal (portion A)	240	60
B	Hong Kong Baptist Church	80	20
	City One Baptist Church	60	20
	Shaukiwan Baptist Church	30	10
	Yuen Long Baptist Church	40	5
	Oi Kwan Road Baptist Church	30	5
	Subtotal (portion B)	240	60
C	West Point Baptist Church	35	10
	Tai Kok Tsui Baptist Church	30	5
	Yan Tin Baptist Church	40	10
	North Point Baptist Church	40	10
	Hong Kong Grace Baptist Church	30	10
	Causeway Bay Baptist Church	45	10
	Immanuel Baptist Church	20	5
	Subtotal (portion C)	240	60
	Grand total (portions A, B, and C)	720	180

Table 3. Number of Teacher Questionnaires Sent to Participating Churches in October 1997

Portion	Church	No. of Teacher Questionnaires
D	Kowloon City Baptist Church	14
	Tsimshatsui Baptist Church	11
	Hong Kong Baptist Church	11
	Yuen Long Baptist Church	10
	Subtotal (portion D)	46
E	City One Baptist Church	8
	Shaukiwan Baptist Church	6
	West Point Baptist Church	6
	Hong Kong Grace Baptist Church	3
	Causeway Bay Baptist Church	7
	Ngau Chi Wan Chuk Yuen Swatow Baptist Church	8
	Sheung Wan Baptist Church	7
	Subtotal (portion E)	45
F	Oi Kwan Road Baptist Church	4
	Tai Kok Tsui Baptist Church	4
	Yan Tin Baptist Church	3
	North Point Baptist Church	4
	Immanuel Baptist Church	6
	Aberdeen Baptist Church	3
	Shamshuipo Baptist Church	5
	Tsz Wan Shan Baptist Church	4
	Tokwawan Baptist Church	3
	Hing Wah Baptist Church	6
	Sai Kung Baptist Church	3
	Subtotal (portion F)	45
	Grand total (portions D, E, and F)	136

5. Several medium or small churches had satisfactory response rates after one month.

6. For the churches whose response rates were unsatisfactory, the researcher asked the Sunday School directors to remind those who forgot to bring back the questionnaires to return them as soon as possible. For those who had lost the questionnaires, provision was made for replacement. So these churches required more time to collect enough questionnaires.

7. For the churches which distributed learner questionnaires and teacher questionnaires, the researcher went to the church to collect the data when the church was ready.

8. The churches which only distributed the teacher questionnaires mailed back the answers to the researcher in the returned envelopes provided.

9. By the end of November 1997, it was known that the response from Tsimshatsui Baptist Church was quite poor. So one more church in portion A was necessary for compensation. Tai Po Baptist Church was requested to distribute the questionnaires. The response was much better.

10. The response to teacher questionnaires in portion D and portion E was also problematic. Tsuen Wan Baptist Church and Chai Wan Baptist Church were added to portions D and E respectively. The number of questionnaires sent to churches in December is listed in Table 4. Together with the questionnaires

sent out in October, the total number of questionnaires sent to churches was 820 adult learner questionnaires, 210 youth learner questionnaires, and 163 teacher questionnaires.

Table 4. Number of Questionnaires Sent to Participating Churches in December 1997

Portion	Church	No. of Adult Learner Questionnaires	No. of Youth Learner Questionnaires	No. of Teacher Questionnaires
A	Tai Po Baptist Church	100	30	--
D	Tai Po Baptist Church	--	--	12
	Tsuen Wan Baptist Church	--	--	7
E	Chai Wan Baptist Church	--	--	8
	Total	100	30	27

11. At the beginning of March 1998, 476 adult learner questionnaires, 142 youth learner questionnaires, and 123 teacher questionnaires were collected. The return rates of the questionnaires are listed in Table 5.

Table 5. Return Rates of Questionnaires

Sample	No. of Questionnaires Sent Out	No. of Questionnaires Returned	Return Rate
Adult learner	820	476	58.05%
Youth learner	210	142	67.62%
Teacher	163	123	75.46%

12. Among the returned questionnaires, 8 adult learner questionnaires, 2 youth learner questionnaires, and 3 teacher questionnaires were incomplete, therefore invalid. So that left 468 adult learner questionnaires, 140 youth learner questionnaires, and 120 teacher questionnaires collected as usable completed questionnaires. They are listed in Table 6 and Table 7.

Table 6. Number of Usable Learner Questionnaires Returned by Participating Churches

Portion	Church	No. of Adult Learner Questionnaires	No. of Youth Learner Questionnaires
A	Kowloon City Baptist Church	69	16
	Tsimshatsui Baptist Church	31	15
	Tai Po Baptist Church	61	20
	Subtotal (portion A)	161	51
B	Hong Kong Baptist Church	49	13
	City One Baptist Church	36	17
	Shaukiwan Baptist Church	21	10
	Yuen Long Baptist Church	15	4
	Oi Kwan Road Baptist Church	23	5
	Subtotal (portion B)	144	49
C	West Point Baptist Church	19	9
	Tai Kok Tsui Baptist Church	28	4
	Yan Tin Baptist Church	23	6
	North Point Baptist Church	25	5
	Hong Kong Grace Baptist Church	27	6
	Causeway Bay Baptist Church	29	6
	Immanuel Baptist Church	12	4
	Subtotal (portion C)	163	40
	Grand total (portions A, B, and C)	468	140

Table 7. Number of Usable Teacher Questionnaires Returned by Participating Churches

Portion	Church	No. of Teacher Questionnaires
D	Kowloon City Baptist Church	7
	Tsimshatsui Baptist Church	5
	Hong Kong Baptist Church	8
	Yuen Long Baptist Church	4
	Tai Po Baptist Church	7
	Tsuen Wan Baptist Church	7
	Subtotal (portion D)	38
E	City One Baptist Church	6
	Shaukiwan Baptist Church	3
	West Point Baptist Church	4
	Hong Kong Grace Baptist Church	3
	Causeway Bay Baptist Church	5
	Ngau Chi Wan Chuk Yuen Swatow Baptist Church	7
	Sheung Wan Baptist Church	5
	Chai Wan Baptist Church	8
	Subtotal (portion E)	41
F	Oi Kwan Road Baptist Church	4
	Tai Kok Tsui Baptist Church	4
	Yan Tin Baptist Church	3
	North Point Baptist Church	3
	Immanuel Baptist Church	5
	Aberdeen Baptist Church	3
	Shamshuipo Baptist Church	4
	Tsz Wan Shan Baptist Church	4
	Tokwawan Baptist Church	3
	Hing Wah Baptist Church	5
	Sai Kung Baptist Church	3
	Subtotal (portion F)	41
	Grand total (portions D, E, and F)	120

13. As listed in Table 6 and Table 7, the number of usable collected questionnaires was considered to be sufficient. Thus the data collection procedure was completed.

CHAPTER 3

ANALYSIS

Procedure for Analyzing Data

A code number with five characters was assigned to each completed questionnaire. The first character identified the respondent as adult (A), youth (Y), or teacher (T). The second character identified the respondent belonging to church portion A to F. The third to fifth characters were the respondent's number in that category.

Answers of Sunday School learners and adult Sunday School teachers were keyed into the computer program files. The scores of individual respondents were computed. The demographic variables of the respondents were also keyed into the computer program files (appendixes N, O, and P).

These scores and demographic variables were transferred to a Statistical Package of Social Sciences--Version 6 software. The researcher then conducted the statistical tests required. The tests are presented in this chapter.

Testing the Hypotheses

Hypotheses 1 to 3

The "T-test" for two independent samples was used to test hypotheses 1 to 3. Their null hypotheses were stated as follows:

1. Hypothesis 1: In Sunday Schools of Hong Kong Chinese Baptist churches, there is no significant difference in self-directed learning readiness scores between adult learners' self-ratings and teachers' ratings of the adult learners.

2. Hypothesis 2: In Sunday Schools of Hong Kong Chinese Baptist churches, there is no significant difference in self-directed learning readiness scores between adult learners and youth learners.

3. Hypothesis 3: In Sunday Schools of Hong Kong Chinese Baptist churches, there is no significant difference in self-directed learning readiness scores between male and female adult learners.

The formula for the t-test for independent samples is

$$t = \frac{\overline{X} - \overline{Y}}{S_{\overline{X}-\overline{Y}}}$$

where the numerator is the difference between two sample means, and the denominator is the sample error of difference. If the computed value of t is greater than the critical value of t, the null hypothesis will be rejected.[92] Besides, the level of significance (α) chosen in this study is .05. If the 2-tail significance (or probability) is less than .05, the null hypothesis will be rejected.[93]

Furthermore, the equation for a .95 confidence interval (α=.05) about mean differences of two samples is

$$CI_{95} = (\overline{X} - \overline{Y}) \pm t_{cv(95)} S_{\overline{X}-\overline{Y}}$$

If the interval does not include the value of 0, the null hypothesis will be rejected.[94]

The Levene's Test is used to test for the equality of variances before the t-value can be chosen. If the P value is greater than α (.05), the variances are equal. The t-value at equal variances is used in the test.[95]

If the null hypotheses of hypotheses 1 to 3 are rejected, in Sunday Schools of Hong Kong Chinese Baptist churches there are significant differences in self-directed learning readiness scores between adult learners' self-ratings and teachers' ratings of the learners, between youth and adult learners, and between genders of adult learners.

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[92] Yount, 125, 127.

[93] Donald H. Sanders, *Statistics: A First Course*, 5th ed. (New York: McGraw Hill, 1995), 289-291, 299-300.

[94] Yount, 129.

[95] *Encyclopedia of Statistical Sciences*, s.v. "Levene's Robust Test of Homogeneity of Variances."

Hypotheses 4 and 5

The "Chi-square test of Independence" and "One-way Analysis of Variance" were used to test hypotheses 4 and 5. Their null hypotheses were stated as follows:

1. Hypothesis 4: In Sunday Schools of Hong Kong Chinese Baptist churches, the scores on self-directed learning readiness and education levels of adult learners are not dependent.

2. Hypothesis 5: In Sunday Schools of Hong Kong Chinese Baptist churches, the scores on self-directed learning readiness and job levels of adult learners are not dependent.

The Chi-square formula is

$$\chi^2 = \sum \frac{(0 - E)^2}{E}$$

where O is the observed frequency and E the expected frequency for each category. If the computed value of chi-square (Pearson) is equal to or greater than the critical value of chi-square, the null hypothesis will be rejected.[96] Besides, if the significance is less than α (.05), the null hypothesis will be rejected.

If the two variables are dependent, the coefficient of association, Cramer's V, will be computed to measure the degree of relationship between the variables. The equation for Cramer's V is

$$\text{Cramer's V} = \sqrt{\frac{\chi^2}{N(k-1)}}$$

where N is the number of cases and k is the smaller number of rows or columns.[97] Measures of assocation less than .10 indicate weak and uninteresting relationships between the variables. Values between .10 and .30 would be regarded as moderate in strength and noteworthy, whereas those over .30 would be regarded as extremely interesting and evidence of a strong relationship between the variables.[98] However, a basic assumption of chi-square test is that fewer than 20% of the cells have an expected frequency of less than 5. Otherwise the chi-square test cannot be used.[99]

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[96] Yount, 163-164.

[97] Duncan Cramer, *Introducing Statistics for Social Research* (London: Routledge, 1994), 191.

[98] Joseph F. Healey, Earl R. Babbie, and Fred Halley, *Exploring Social Issues: Using SPSS for Windows* (Thousand Oaks, California: Pine Forge, 1997), 82.

When a significant relationship is found between the variables, the one-way analysis of variance test is performed to find out which pairs of means are significantly different. The equation for one-way analysis of variance is

$$F - \text{ratio} = \frac{MS_b}{MS_w}$$

where MS_b is mean-square-between and MS_w is mean-square-within. If the computed value of F-ratio is greater than the critical value of F-ratio, the null hypothesis will be rejected. Besides, if the probability is less than α (.05), the null hypothesis will be rejected.[100]

A basic assumption of analysis of variance is that the population variances are homogeneous.[101] In the Levene Test if the 2-tail significance value is greater than α (.05), the variances are homogeneous and the test by analysis of variance can be valid.

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[99] Cramer, 83.

[100] Yount, 133-134.

[101] Sanders, 417.

In order to determine which pairs of means differ significantly, the multiple range test is required. In this study, the Duncan Test is used. The asterisks indicate the pairs whose means are statistically different at the .05 level.[102]

If the null hypotheses of hypotheses 4 and 5 are rejected, in Sunday Schools of Hong Kong Chinese Baptist churches the scores on self-directed learning readiness and education levels or job levels of adult learners are dependent. Significant differences exist between certain pairs of the self-directed learning readiness mean scores of adult learners with different education levels or job levels.

Statistical Tests Employed

Statistical tests were performed on the data. Tests 1 to 5 were performed to test hypotheses 1 to 5 respectively. In the questionnaires, there was additional data besides that used directly in the five hypotheses. This data included variables of teachers, adult learners, and youth learners, and was useful to give additional information to this study. So tests 6 to 8 were performed on the additional variables of teachers, adult learners, and youth learners respectively. The following statistical tests were performed in the order of the hypotheses and the additional variables.

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[102] *Encyclopedia of Statistical Sciences*, s.v. "Duncan's Multiple Range Test."

1. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of adult learners' self-ratings and teachers' ratings of the adult learners.

2. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of adult learners and youth learners.

3. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of male and female adult learners.

4a. Chi-square test to determine any significant relationship between the self-directed learning readiness scores (low, medium, high) and five different education levels of adult learners.

4b. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of adult learners with five different education levels.

4c. Chi-square test to determine any significant relationship between the self-directed learning readiness scores (low, medium, high) and five different education levels of male and female adult learners

5a. Chi-square test to determine any significant relationship between the self-directed learning readiness scores (low, medium, high) and three different job levels of adult learners

5b. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of adult learners with three different job levels

5c. Chi-square test to determine any significant relationship between the self-directed learning readiness scores (low, medium, high) and three different job levels of male and female adult learners

6a. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of teachers' ratings of the adult learners by teachers with different numbers of teaching years in adult Sunday Schools

6b. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of teachers' ratings of the adult learners by teachers with and without teacher training in adult Sunday School

7a. Chi-square test to determine any significant relationship between the three job levels and five education levels of adult learners

7b. Chi-square test to determine any significant relationship between the self-directed learning readiness scores (low, medium, high) and the five age groups of adult learners

7c. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of adult learners with different numbers of years as Christians

8a. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of male and female youth learners

8b. T-test for two independent samples to determine any significant difference in the self-directed learning readiness mean scores of two different age groups of youth learners

8c. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of youth learners with three different education levels

8d. One-way analysis of variance to determine any significant differences in the self-directed learning readiness mean scores of youth learners with different numbers of years as Christians

Presentation of the Data and Analysis

The data and statistical analysis are presented in the order of the hypotheses and the additional analysis. The descriptive statistics of the three samples: adult learners, youth learners, and teachers' ratings of adult learners, are shown in Table 8.

Table 8. Descriptive Statistics of the Three Samples

Score	Adult Learner	Youth Learner	Teacher's Rating of Adult Learners
Mean	206.13	193.14	181.38
Median	206.00	190.00	179.00
Std. dev.	21.76	20.33	23.26
Maximum	256.00	265.00	235.00
Minimum	140.00	140.00	124.00

Hypothesis 1

Hypothesis 1 states that in Sunday Schools of Hong Kong Chinese Baptist churches, there is significant difference in self-directed learning readiness scores between adult learners' self-ratings and teachers' ratings of the adult learners. From the data in this study, the mean SDLRS score of the 468 adult learners was 206.13. According to a chart by Guglielmino, the score could be classified as low (58-176), below average (177-201), average

(202-226), above average (227-251), or high (252-290). The mean score of the American adult norm was 214.[103] Thus the mean score of the adult learner sample in this study was within average, but below that of the American norm.

The mean score for the 120 teachers' ratings of adult learners' self-directed learning readiness was 181.38. A t-test for the two independent samples of adult learners' self-ratings and teachers' ratings of adult learners was performed to compare their mean scores. The statistical output is shown in Output 1.

Output 1. T-Test for the Self-Directed Learning Readiness Scores of Adult Learners' Self-Ratings and Teachers' Ratings of Adult Learners

```
t-tests for Independent Samples of ADULT LEARNER and TEACHER

Variable        No. of Cases      Mean Score         SD     SE of Mean
Adult learner        468           206.1303       21.758       1.006
Teacher              120           181.3750       23.261       2.123

          Mean Difference = 24.7553
          Levene's Test for Equality of Variances: F=  .979     P=  .323

t-test for Equality of Means

Variances     t-value       df     2-Tail Sig     SE of Diff     95% CI for Diff
Equal           10.96      586        .000          2.258      (20.320, 29.191)
Unequal         10.54   176.12        .000          2.350      (20.118, 29.392)
```

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[103] Guglielmino and Guglielmino, 8.

In the Levene's Test for equality of variances, P (.323) was greater than our level of significance α (.05). So the variances were equal. The computed value of t (10.96) was greater than the critical value of t (1.960). The 2-tail significance (.000) was less than α (.05). The 95% CI for diff. (20.320, 29.191) did not include the value of 0. All these results indicated that the difference in mean scores was statistically significant. Hypothesis 1 was accepted. On the average, the self-directed learning readiness scores of adult learners' self-ratings were higher than the scores of teachers' ratings of the adult learners in Sunday Schools of Hong Kong Chinese Baptist churches.

Hypothesis 2

Hypothesis 2 states that in Sunday Schools of Hong Kong Chinese Baptist churches, adult learners exhibit higher self-directed learning readiness scores than youth learners. From the data in this study, the mean SDLRS score for the 140 youth learners was 193.14. A t-test for the two independent samples of adult learners and youth learners was performed to compare their mean scores. The statistical output is shown in Output 2.

Output 2. T-Test for the Self-Directed Learning Readiness Scores of Adult Learners and Youth Learners

t-tests for Independent Samples of ADULT LEARNER and YOUTH LEARNER

Variable	No. of Cases	Mean Score	SD	SE of Mean
Adult learner	468	206.1303	21.758	1.006
Youth learner	140	193.1429	20.331	1.718

Mean Difference = 12.9875
Levene's Test for Equality of Variances: F= 2.124 P= .146

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	6.29	606	.000	2.065	(8.932, 17.043)
Unequal	6.52	242.10	.000	1.991	(9.066, 16.909)

In the Levene's Test for equality of variances, P (.146) was greater than our level of significance α (.05). So the variances were equal. The computed value of t (6.29) was greater than the critical value of t (1.960). The 2-tail significance (.000) was less than α (.05). The 95% CI for diff (8.932, 17.043) did not include the value of 0. All these results indicated that the difference in mean scores was statistically significant. Hypothesis 2 was accepted. On the average, the self-directed learning readiness scores of adult learners were higher than those of youth learners in Sunday Schools of Hong Kong Chinese Baptist churches.

Hypothesis 3

Hypothesis 3 states that in Sunday Schools of Hong Kong Chinese Baptist churches, there is no significant difference in self-directed learning readiness scores between male and female adult learners. A t-test for the two independent samples of male and female adult learners was performed to compare their mean scores. The statistical output is shown in Output 3.

Output 3. T-Test for the Self-Directed Learning Readiness Scores of Male and Female Adult Learners

t-tests for Independent Samples of ADULT'S GENDER

Variable	No. of Cases	Mean Score	SD	SE of Mean
Male	166	206.9699	21.303	1.653
Female	302	205.6689	22.026	1.267

Mean Difference = 1.3010
Levene's Test for Equality of Variances: F= .516 P= .473

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	.62	466	.537	2.104	(-2.833, 5.435)
Unequal	.62	349.69	.533	2.083	(-2.796, 5.398)

In the Levene's Test for equality of variances, P (.473) was greater than our level of significance (.05). So the variances were equal. The computed value of t (.62) was less than the critical value of t (1.960). The 2-tail significance (.537) was greater than α (.05). The 95% CI for diff. (-2.833, 5.435) included the value of 0. All these results indicated that the difference in mean scores was not statistically significant. Hypothesis 3 was accepted. On the average, there was no significant difference in self-directed learning readiness scores between male and female adult learners in Sunday Schools of Hong Kong Chinese Baptist churches.

Hypothesis 4

Hypothesis 4 states that in Sunday Schools of Hong Kong Chinese Baptist churches, there is a positive relationship between adult learners' self-directed learning readiness scores and education levels. The mean scores of adult learners with different education levels are listed in Table 9. The graph of mean score by adult learner's education level is shown in Figure 1.

Table 9. Mean Scores of Adult Learners with Different Education Levels

Adult Learner's Education Level	No. of Cases	Mean Score
Primary	27	194.1481
Secondary	160	201.6375
Postsecondary	122	205.9344
University	129	212.2326
Postgraduate	30	215.4333
Total	468	206.1303

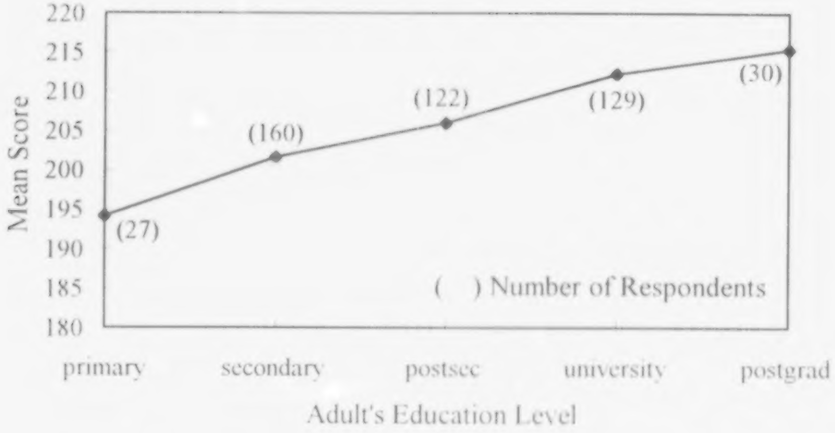

Fig. 1. Mean Score by Adult's Education Level

A chi-square test was first performed. The scores were classified as high, medium, or low by standard deviation. Scores lower than one half of standard deviation below the mean were classified as low (range: 140-194). Scores within half a standard deviation of the mean were classified as medium (range: 195-217). Scores higher than half a standard deviation above the mean were classified as high (range: 218-256).

4a. A chi-square test on the relationship of adult learners' score classification and education levels was performed. The statistical output is shown in Output 4a.

Output 4a. Chi-Square Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Education Levels

```
GPSCORE   Adult Score Classification   by   EDU   Education Level

                          EDU
               Count     |primary  secondary postsec  university postgrad
               Exp Val   |                                                  Row
GPSCORE                  |    1.00|     2.00|     3.00|     4.00|     5.00|  Total
                         +--------+---------+---------+---------+---------+
               1.00      |    13  |    65   |    36   |    20   |     1   |    135
low                      |    7.8 |   46.2  |   35.2  |   37.2  |    8.7  |  28.8%
                         +--------+---------+---------+---------+---------+
               2.00      |    10  |    52   |    50   |    58   |    16   |    186
medium                   |   10.7 |   63.6  |   48.5  |   51.3  |   11.9  |  39.7%
                         +--------+---------+---------+---------+---------+
               3.00      |     4  |    43   |    36   |    51   |    13   |    147
high                     |    8.5 |   50.3  |   38.3  |   40.5  |    9.4  |  31.4%
                         +--------+---------+---------+---------+---------+
               Column        27       160       122       129        30       468
               Total        5.8%     34.2%     26.1%     27.6%      6.4%   100.0%

         Chi-Square                    Value             DF          Significance
-------------------------------     -----------        ----        ------------
Pearson                              38.04293            8             .00001
Likelihood Ratio                     42.68289            8             .00000
Linear-by-Linear                     29.40784            1             .00000
     Association

Minimum Expected Frequency -  7.788

                                                                    Approximate
         Statistic                 Value       ASE1      Val/ASE0   Significance
-------------------------------  ---------   --------   ---------  ------------
Phi                                .28511                             .00001
Cramer's V                         .20160                             .00001
Contingency Coefficient            .27418                             .00001

Number of Missing Observations:  0
```

The computed value of Pearson chi-square (38.04293) was greater than the critical value of chi-square (15.51), and the significance (.00001) of chi-square was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .20160, so this relationship was moderate. The increase of the mean scores with education levels in Table 9 indicated a positive relationship. The graph in Figure 1 showed a rather linear relationship. Hypothesis 4 was accepted. In Sunday Schools of Hong Kong Chinese Baptist churches, as the adult learners' education levels increased, their self-directed learning readiness scores increased.

4b. A one-way analysis of variance test was performed to compare the mean scores of adult learners with the five education levels. The statistical outputs are shown in Output 4b(i) and Output 4b(ii).

In Output 4b(i) the Levene Test showed that the 2-tail significance (.055) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid here.

The computed value of F-ratio (8.1309) was greater than the critical value of F-ratio (2.3719). The F prob. (.0000) was less than our level of significance α (.05). So there were differences in certain pairs of mean scores.

Output 4b(i). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Education Levels

```
                              ----- ONEWAY -----

     Variable SCORE
  By Variable ADULT'S EDUCATION LEVEL

Levene Test for Homogeneity of Variances

     Statistic        df1        df2        2-tail Sig.
      2.3358           4         463           .055

                              Analysis of Variance

                                  Sum of            Mean            F           F
        Source          D.F.      Squares           Squares         Ratio       Prob.
Between Groups            4     14510.8014        3627.7004        8.1309      .0000
Within Groups           463    206572.2477         446.1604
Total                   467    221083.0491
```

In Output 4b(ii) the Duncan test indicated significant differences between six pairs of mean scores of the adult learners with the following education levels:

--primary and postsecondary

--primary and university

--primary and postgraduate

--secondary and university

--secondary and postgraduate

--postsecondary and postgraduate

Output 4b(ii). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Education Levels: Duncan Test

```
Multiple Range Tests:   Duncan test with significance level .05
Harmonic Mean Cell size =54.0137

  The actual range used is the listed RANGE * 2.8740
  with the following value(s) for RANGE:

 Step        2       3       4       5
 RANGE     2.78    2.93    3.02    3.09

  (*) Indicates significant differences which are shown in the lower triangle

                                s p u p
                              p e o n o
                              r c s i s
                              i o t v t
                              m n s e g
                              a d e r r
                              r a c s a
                              y r o i d
     Mean      EDU
   194.1481    primary
   201.6375    secondar
   205.9344    postseco       *
   212.2326    universi       * *
   215.4333    postgrad       * * *
```

4c. A further investigation of the distribution of genders with different education levels was made. The mean scores and percentages of male and female adult learners with different education levels are given in Table 10.

Table 10. Mean Scores of Male and Female Adult Learners with Different Education Levels

Adult Learner's Education Level	Male No. of Cases	Male %	Male Mean Score	Female No. of Cases	Female %	Female Mean Score
Primary	6	3.6%	193.50	21	7.0%	194.33
Secondary	45	27.1%	198.96	115	38.1%	202.69
Postsecondary	45	27.1%	206.00	77	25.5%	205.90
University	51	30.7%	214.16	78	25.8%	210.97
Postgraduate	19	11.4%	213.21	11	3.6%	219.27
Total	166	100.0%	206.97	302	100.0%	205.67

Another chi-square test was performed with the sublevels of male and female adult learners. The statistical outputs are shown in Output 4c(i) and Output 4c(ii).

In Output 4c(i) for the males, the percentage of cells with expected frequency less than 5 was greater than 20%. This percentage violated the basic assumption of chi-square test. Hence it could not be used here.

Output 4c(i). Chi-Square Test for the Self-Directed Learning Readiness Scores of Male Adult Learners with Different Education Levels

```
GPSCORE   Adult Score Classification   by   EDU   Education Level
Controlling for . . .  GENDER        MALE

                   EDU
           Count   primary   secondary postsec   university postgrad
           Exp Val                                                    Row
GPSCORE              1.00|     2.00|     3.00|     4.00|     5.00|   Total
                 +--------+--------+--------+--------+--------+
           1.00  |     3  |    22  |    11  |     6  |     1  |      43
low              |   1.6  |  11.7  |  11.7  |  13.2  |   4.9  |   25.9%
                 +--------+--------+--------+--------+--------+
           2.00  |     3  |    12  |    23  |    25  |     9  |      72
medium           |   2.6  |  19.5  |  19.5  |  22.1  |   8.2  |   43.4%
                 +--------+--------+--------+--------+--------+
           3.00  |     0  |    11  |    11  |    20  |     9  |      51
high             |   1.8  |  13.8  |  13.8  |  15.7  |   5.8  |   30.7%
                 +--------+--------+--------+--------+--------+
           Column       6       45       45       51       19       166
            Total    3.6%    27.1%    27.1%    30.7%    11.4%    100.0%

      Chi-Square                 Value          DF          Significance
--------------------          -----------     ----         --------------
Pearson                        27.55217         8              .00057
Likelihood Ratio               29.89042         8              .00022
Linear-by-Linear               19.18627         1              .00001
     Association

Minimum Expected Frequency - 1.554
Cells with Expected Frequency < 5 -       4 of 15 (26.7%)

                                                              Approximate
      Statistic                Value      ASE1     Val/ASE0   Significance
--------------------          -------    ------   ---------  -------------
Phi                            .40740                             .00057
Cramer's V                     .28808                             .00057
Contingency Coefficient        .37729                             .00057
```

Output 4c(ii). Chi-Square Test for the Self-Directed Learning Readiness Scores of Female Adult Learners with Different Education Levels

```
GPSCORE   Adult Score Classification   by   EDU   Education Level
Controlling for . . .  GENDER        FEMALE

                    EDU
           Count   |primary   secondary postsec   university postgrad
           Exp Val |                                                    Row
GPSCORE            |    1.00|     2.00|     3.00|     4.00|     5.00|  Total
                   +--------+---------+---------+---------+---------+
             1.00  |   10   |   43    |   25    |   14    |    0    |    92
low                |   6.4  |  35.0   |  23.5   |  23.8   |   3.4   |  30.5%
                   +--------+---------+---------+---------+---------+
             2.00  |    7   |   40    |   27    |   33    |    7    |   114
medium             |   7.9  |  43.4   |  29.1   |  29.4   |   4.2   |  37.7%
                   +--------+---------+---------+---------+---------+
             3.00  |    4   |   32    |   25    |   31    |    4    |    96
high               |   6.7  |  36.6   |  24.5   |  24.8   |   3.5   |  31.8%
                   +--------+---------+---------+---------+---------+
           Column      21       115        77        78        11       302
            Total     7.0%     38.1%     25.5%     25.8%      3.6%    100.0%

        Chi-Square                  Value            DF            Significance
--------------------------       -----------       ------          ------------
Pearson                            17.48586           8               .02543
Likelihood Ratio                   20.86173           8               .00752
Linear-by-Linear                   12.27068           1               .00046
     Association

Minimum Expected Frequency -  3.351
Cells with Expected Frequency < 5 -      3 of 15 ( 20.0%)

                                                                   Approximate
        Statistic                 Value        ASE1      Val/ASE0   Significance
--------------------------       --------    --------   --------   ------------
Phi                               .24062                               .02543
Cramer's V                        .17015                               .02543
Contingency Coefficient           .23395                               .02543

Number of Missing Observations:   0
```

In Output 4c(ii) for the females, the percentage of cells with expected frequency less than 5 was just 20%. The computed value of Pearson chi-square (17.48586) was greater than the critical value of chi-square (15.51), and the significance of chi-square (.02543) was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .17015, so this relationship was moderate. The increase of the female mean scores with education levels in Table 10 indicated a positive relationship. In Sunday Schools of Hong Kong Chinese Baptist churches, as the female adult learners' education levels increased, their self-directed learning readiness scores increased.

Furthermore, from Table 10 and chi-square tables in Outputs 4c(i)and 4c(ii), the percentages of males and females in different education levels revealed that more females were of lower education level (7.0% primary, 38.1% secondary) than males (3.6% primary, 27.1% secondary), and more males at higher education level (30.7% university, 11.4% postgraduate) than females (25.8% university, 3.6% postgraduate). These statistics impacted their self-directed learning readiness scores.

The distribution of scores with male and female adult learners' education levels is shown in the boxplot chart in Figure 2. The graph of mean scores by male and female adult learners' education levels is shown in Figure 3.

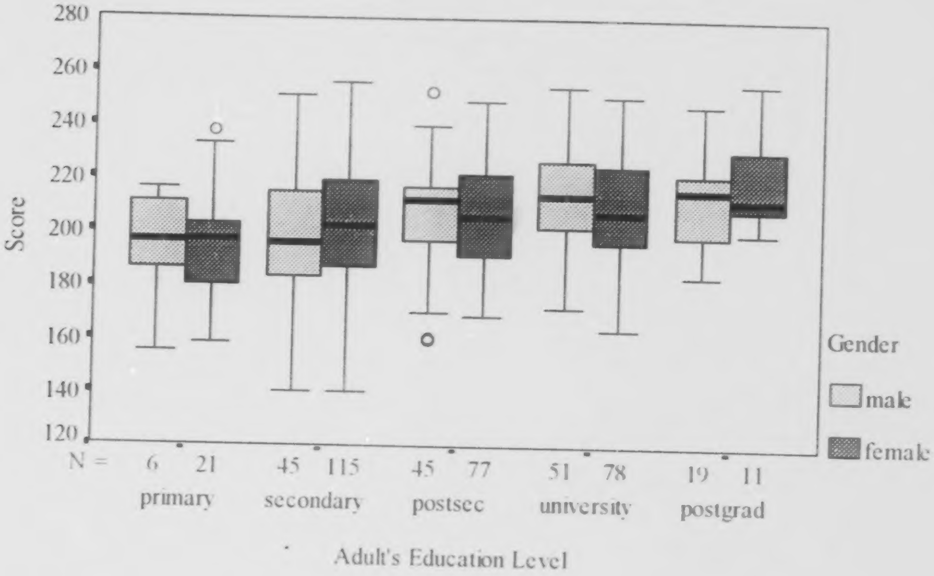

Fig. 2. Score by Adult's Education Level

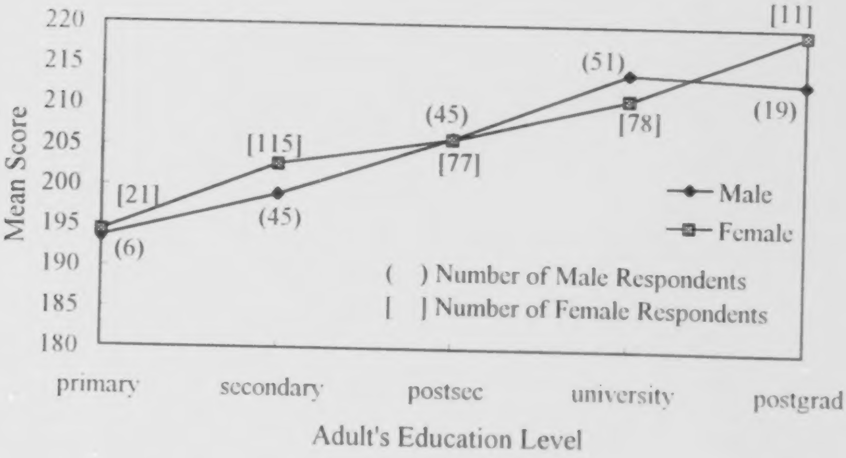

Fig. 3. Mean Score by Adult's Education Level and Gender

Hypothesis 5

Hypothesis 5 states that in Sunday Schools of Hong Kong Chinese Baptist churches, there is a positive relationship between adult learners' self-directed learning readiness scores and job levels. The mean scores of adult learners with different job levels are listed in Table 11. The graph of mean score by adult learner's job level is shown in Figure 4.

Table 11. Mean Scores of Adult Learners with Different Job Levels

Adult Learner's Job Level	No. of Cases	Mean Score
Low	98	192.4694
Middle	231	209.3636
High	53	229.4528
Total	382	207.8168

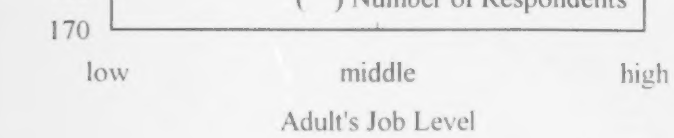

Fig. 4. Mean Score by Adult's Job Level

5a. A chi-square test was performed to find the relationship between adult learners' score classification and job levels. The statistical output is shown in Output 5a.

Output 5a. Chi-Square Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Job Levels

```
GPSCORE   Adult Score Classification   by   JOB LEVEL

                    JOB LEVEL
           Count   |low      middle    high
           Exp Val |                              Row
GPSCORE            |    1.00|    2.00|    3.00|   Total
            1.00   |    58  |    43  |     0  |     101
low                |   25.9 |   61.1 |   14.0 |   26.4%
            2.00   |    28  |   115  |     9  |     152
medium             |   39.0 |   91.9 |   21.1 |   39.8%
            3.00   |    12  |    73  |    44  |     129
high               |   33.1 |   78.0 |   17.9 |   33.8%
           Column       98      231       53       382
            Total     25.7%    60.5%    13.9%    100.0%

____Chi-Square_____        ___Value___      __DF__      __Significance__
Pearson                     126.76392          4            .00000
Likelihood Ratio            126.07018          4            .00000
Linear-by-Linear             99.85782          1            .00000
     Association

Minimum Expected Frequency - 14.013
                                                            Approximate
_____Statistic_____      __Value__   __ASE1__   __Val/ASE0__  __Significance__
Phi                        .57606                               .00000
Cramer's V                 .40733                               .00000
Contingency Coefficient    .49916                               .00000

Number of Missing Observations:  86
```

The computed value of Pearson chi-square (126.76392) was greater than the critical value of chi-square (9.49), and the significance of chi-square (.00000) was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .40733, so this relationship was strong. The increase of the mean scores with job levels in Table 11 indicated a positive relationship. The graph in Figure 4 showed a rather linear relationship. Hypothesis 5 was accepted. In Sunday Schools of Hong Kong Chinese Baptist churches, as the adult learners' job levels increased, their self-directed learning readiness scores increased.

5b. A one-way analysis of variance test was performed to compare the mean scores of adult learners with the three job levels. The statistical outputs are shown in Output 5b(i) and Output 5b(ii).

In Ouput 5b(i) the Levene Test showed that the 2-tail significance (.064) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid here.

The computed value of F-ratio (77.4789) was greater than the critical value of F-ratio (2.9957). The F prob. (.0000) was less than our level of significance α (.05). So there were differences in certain pairs of mean scores.

Output 5b(i). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Job Levels

```
                         ----- ONEWAY -----

    Variable SCORE
   By Variable ADULT'S JOB LEVEL

Levene Test for Homogeneity of Variances

    Statistic      df1       df2       2-tail Sig.
     2.7764         2        379          .064

                          Analysis of Variance

                              Sum of            Mean            F          F
        Source       D.F.     Squares           Squares         Ratio      Prob.
Between Groups          2     48446.1780       24223.0890      77.4789    .0000
Within Groups         379    118490.9948         312.6411
Total                 381    166937.1728
```

In Output 5b(ii) the Duncan test indicated significant differences between all three pairs of mean scores of the adult learners with low, middle, and high levels of jobs. This result reinforced the result of chi-square test 5a.

Output 5b(ii). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Job Levels: Duncan Test

```
Multiple Range Tests:   Duncan test with significance level .05
Harmonic Mean Cell size = 89.8176

  The actual range used is the listed RANGE * 1.8657
  with the following value(s) for RANGE:

 Step        2       3
 RANGE     2.79    2.93

  (*) Indicates significant differences which are shown in the lower triangle

                           m
                           i
                           d  h
                        l  d  i
                        o  l  g
                        w  e  h
    Mean     JOB LEVEL
  192.4694   low
  209.3636   middle     *
  229.4528   high       *  *
```

5c. A further investigation of the distribution of genders with different job levels was made. The mean scores and percentages of male and female adult learners with different job levels are listed in Table 12.

Table 12. Mean Scores of Male and Female Adult Learners with Different Job Levels

Adult Learner's Job Level	Male			Female		
	No. of Cases	%	Mean Score	No. of Cases	%	Mean Score
Low	32	20.4%	192.22	66	29.3%	192.59
Middle	95	60.5%	208.28	136	60.4%	210.12
High	30	19.1%	226.03	23	10.2%	233.91
Total	157	100.0%	208.40	225	100.0%	207.41

Another chi-square test was performed with the sublevels of male and female adult learners. The statistical outputs are shown in Output 5c(i) and Output 5c(ii).

In Output 5c(i) for the males, the computed value of Pearson chi-square (59.46895) was greater than the critical value of chi-square (9.49), and the significance of chi-square (.00000) was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .43519, so this relationship was strong. The increase of the male mean scores with job levels in Table 12 indicated a positive relationship. In Sunday Schools of Hong Kong Chinese Baptist churches, as the male adult learners' job levels increased, their self-directed learning readiness scores increased.

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Output 5c(i). Chi-Square Test for the Self-Directed Learning Readiness Scores of Male Adult Learners with Different Job Levels

```
GPSCORE   Adult Score Classification   by   JOB LEVEL
Controlling for . . .  GENDER        MALE

                        JOB LEVEL
               Count   |low       middle     high
               Exp Val |                                Row
GPSCORE                |    1.00|     2.00|     3.00|   Total
                       +--------+---------+---------+
                 1.00  |     20 |      18 |       0 |     38
low                    |    7.7 |    23.0 |     7.3 |   24.2%
                       +--------+---------+---------+
                 2.00  |      9 |      52 |       7 |     68
medium                 |   13.9 |    41.1 |    13.0 |   43.3%
                       +--------+---------+---------+
                 3.00  |      3 |      25 |      23 |     51
high                   |   10.4 |    30.9 |     9.7 |   32.5%
                       +--------+---------+---------+
               Column       32        95        30       157
                Total    20.4%     60.5%     19.1%    100.0%

_____Chi-Square_______          __Value___         __DF__          _Significance_
Pearson                          59.46895             4                 .00000
Likelihood Ratio                 58.56283             4                 .00000
Linear-by-Linear                 46.18647             1                 .00000
     Association

Minimum Expected Frequency - 7.261

                                                                    Approximate
______Statistic_______          __Value__    __ASE1__   __Val/ASE0__  _Significance_
Phi                              .61545                                 .00000
Cramer's V                       .43519                                 .00000
Contingency Coefficient          .52414                                 .00000
```

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Output 5c(ii). Chi-Square Test for the Self-Directed Learning Readiness Scores of Female Adult Learners with Different Job Levels

```
GPSCORE   Adult Score Classification   by   JOB LEVEL
Controlling for . .   GENDER      FEMALE

                    JOB LEVEL
           Count   |low      middle    high
           Exp Val |                              Row
                   |                              Total
GPSCORE            |   1.00|    2.00|    3.00|
           1.00    |    38 |     25 |      0 |      63
low                |  18.5 |   38.1 |    6.4 |   28.0%
           2.00    |    19 |     63 |      2 |      84
medium             |  24.6 |   50.8 |    8.6 |   37.3%
           3.00    |     9 |     48 |     21 |      78
high               |  22.9 |   47.1 |    8.0 |   34.7%
           Column       66      136       23       225
            Total    29.3%    60.4%    10.2%    100.0%

      Chi-Square               Value             DF          Significance
---------------------      -----------          ----         ------------
Pearson                      70.55746             4              .00000
Likelihood Ratio             70.82898             4              .00000
Linear-by-Linear             55.35643             1              .00000
      Association

Minimum Expected Frequency - 6.440
                                                               Approximate
       Statistic             Value       ASE1     Val/ASE0     Significance
---------------------      ---------   --------   ---------   ------------
Phi                          .55999                                .00000
Cramer's V                   .39597                                .00000
Contingency Coefficient      .48860                                .00000

Number of Missing Observations:  86
```

In Ouput 5c(ii) for the females, the computed value of Pearson chi-square (70.55746) was greater than the critical value of chi-square (9.49), and the significance of chi-square (.00000) was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .39597, so this relationship was strong. The increase of the female mean scores with job levels in Table 12 indicated a positive relationship. In Sunday Schools of Hong Kong Chinese Baptist churches, as the female adult learners' job levels increased, their self-directed learning readiness scores increased.

Furthermore, from Table 12 and chi-square tables in Outputs 5c(i) and 5c(ii), the percentages of males and females in different job levels revealed that more females were at lower job level (29.3%) than males (20.4%), and more males at higher job level (19.1%) than females (10.2%). These statistics impacted their self-directed learning readiness scores.

The distribution of scores with male and female adult learners' job levels is shown in the boxplot chart in Figure 5. The graph of mean scores by male and female adult learners' job levels is shown in Figure 6.

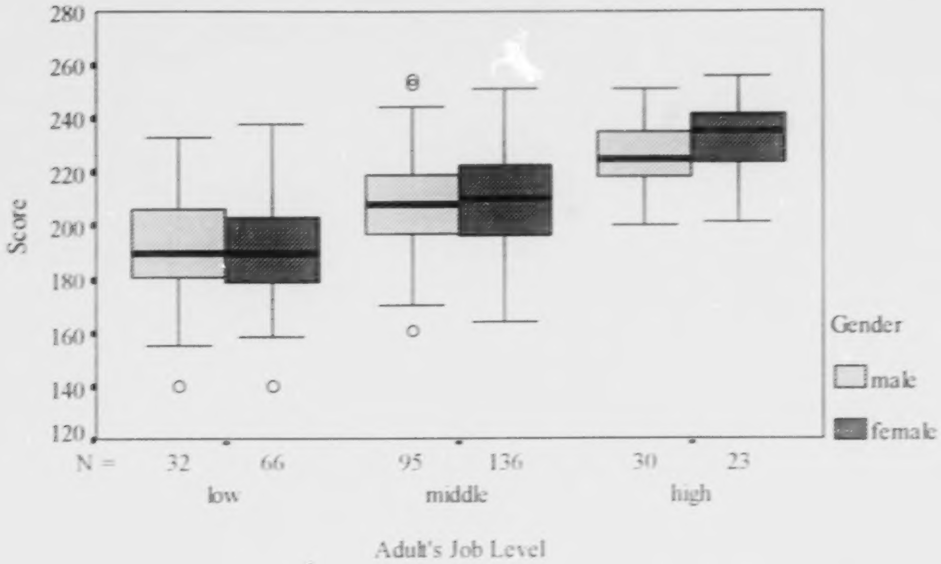

Fig. 5. Score by Adult's Job Level

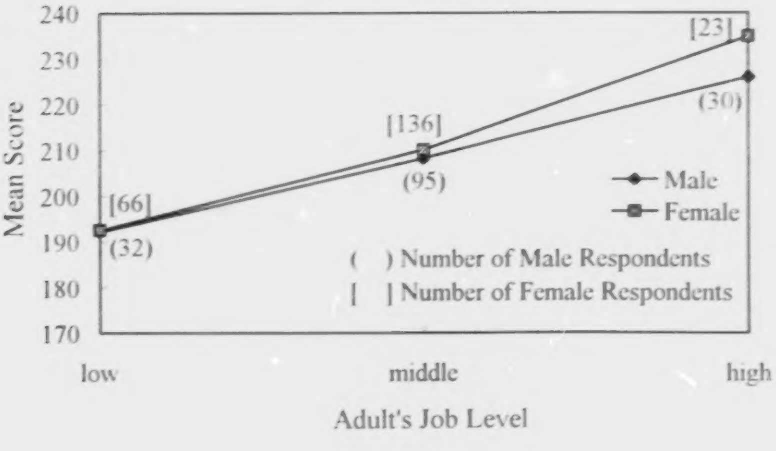

Fig. 6. Mean Score by Adult's Job Level and Gender

Some occupations in the answers could not be classified into job levels. The mean scores of adult learners with these occupations are given in Table 13.

Table 13. Mean Scores of Adult Learners of Occupations without Job Levels

Adult Learner of Occupation without Job Level	No. of Cases	Mean Score
Student	12	210.92
Retired	6	184.33
Housewife	44	197.82
No answer	24	197.58
Total	86	198.64

Additional Analysis

6a. For the teachers, their number of years of teaching adult Sunday Schools was divided into three groups. Group one included those with teaching years of 3 or less, group two with teaching years of 4 to 9, and group three with teaching years of 10 or above. Group one had 47 teachers, group two had 34 teachers, group three had 34 teachers, and 5 teachers gave no answers.

The mean scores of teachers with different numbers of years teaching adult Sunday Schools are listed in Table 14. The graph of mean score by teacher's teaching years in adult Sunday Schools is shown in Figure 7.

Table 14. Mean Scores of Teachers with Different Numbers of Years Teaching Adult Sunday Schools

Teacher's Years of Teaching Adult Sunday School	No. of Cases	Mean Score
3 or less	47	179.3617
4-9	34	180.9412
10 or above	34	185.6176
Total	115	181.6783

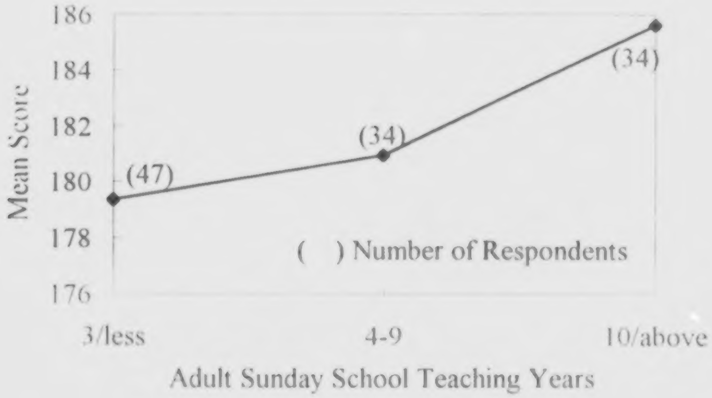

Fig. 7. Mean Score by Adult Sunday School Teaching Years

A one-way analysis of variance test was performed to compare the mean scores of groups one to three. The statistical output is shown in Output 6a.

Output 6a. Analysis of Variance Test for the Ratings of Self-Directed Learning Readiness Scores of Adult Learners by Teachers with Different Numbers of Years Teaching Adult Sunday Schools

```
                        ----- O N E W A Y -----

     Variable SCORE
   By Variable ADULT SUNDAY SCHOOL TEACHING YEARS

Levene Test for Homogeneity of Variances

     Statistic      df1      df2      2-tail Sig.
       .4725         2       112          .625

                             Analysis of Variance

                                  Sum of          Mean          F          F
          Source        D.F.      Squares        Squares      Ratio      Prob.
Between Groups            2       798.3328       399.1664     .7092      .4942
Within Groups           112     63038.7628       562.8461
Total                   114     63837.0957

Multiple Range Tests:   Duncan test with significance level .05
Harmonic Mean Cell size = 37.4531

The actual range used is the listed RANGE *3.8766
   with the following value(s) for RANGE:

  Step        2        3
  RANGE    2.81     2.95

 - No two groups are significantly different at the   .050 level
```

In the Levene Test the 2-tail significance (.625) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid here.

The computed value of F-ratio (.7092) was less than the critical value of F-ratio (3.0718). The F prob. (.4942) was greater than our level of significance α (.05). The Duncan test also showed that no two groups were significantly different at the .05 level. On the average, there was no significant difference in the teachers' ratings of the adult learners' self-directed learning readiness scores by teachers with different numbers of teaching years in adult Sunday Schools of Hong Kong Chinese Baptist churches.

6b. Among the respondents 58 teachers answered that they have received adult Sunday School teacher training; 62 teachers responded negatively. A t-test for the above two independent samples was performed to compare their mean scores. The statistical output is shown in Output 6b.

In the Levene's Test for equality of variances, P (.422) was greater than our level of significance α (.05). So the variances were equal. The computed value of t (.08) was less than the critical value of t (1.980). The 2-tail significance (.936) was greater than α (.05). The 95% CI for diff. (-8.108, 8.792) included the value of 0. All these results indicated that the difference in mean scores was not statistically significant. On the average, there was no significant difference in the teachers' ratings of the adult learners' self-directed learning readiness scores by teachers with or without adult Sunday School teacher training in Sunday Schools of Hong Kong Chinese Baptist churches.

Output 6b. T-Test for the Ratings of Self-Directed Learning Readiness Scores of Adult Learners by Teachers with and without Adult Sunday School Teacher Training

t-tests for Independent Samples of ADULT SUNDAY SCHOOL TEACHER TRAINING

Variable	No.of Cases	Mean Score	SD	SE of Mean
Yes	58	181.5517	22.143	2.908
No	62	181.2097	24.440	3.104

Mean Difference = .3420

Levene's Test for Equality of Variances: F= .650 P= .422

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	.08	118	.936	4.267	(-8.108, 8.792)
Unequal	.08	117.88	.936	4.253	(-8.080, 8.764)

6c. Out of 120 teachers, 110 teachers answered that they did not know Knowles' adult education theory and 4 teachers did not answer this question. Among them, 56 had received adult Sunday hool teacher training. The number of 6 teachers knowing nowles' Theory was too small for any statistical test; however e large number of teachers not knowing Knowles' adult ducation theory was noteworthy.

6d. Concerning the questions of what other kinds of teacher aining they had received and what other adult educators they new, very few teachers filled in answers. The diversity of answers eceived precluded performing a statistical test.

7a. The relationship between adult learners' job levels and ducation levels was investigated. The mean job-levels of adult arners with different education levels are listed in Table 15.

Table 15. Mean Job-Levels of Adult Learners with Different Education Levels

Adult Learner's Education Level	No. of Cases	Mean Job-Level
Primary	10	1.20
Secondary	118	1.44
Postsecondary	117	1.91
University	110	2.23
Postgraduate	27	2.52
Total	382	1.88

A chi-square test was performed to find the relationship between adult learners' job levels and education levels. The statistical output is shown in Output 7a.

Output 7a. Chi-Square Test for the Relationship between Adult Learners' Job Levels and Education Levels

```
JOB LEVEL   Adult's Job Level   by   EDU   Education Level

                   EDU
          Count   |primary  secondary postsec  university postgrad
JOB       Exp Val |                                                   Row
LEVEL             |    1.00|    2.00|    3.00|    4.00|    5.00|     Total
            1.00  |       8|      70|      20|       0|       0|        98
low               |     2.6|    30.3|    30.3|    28.2|     6.9|     25.7%
            2.00  |       2|      44|      87|      85|      13|       231
middle            |     6.0|    71.4|    70.8|    66.5|    16.3|     60.5%
            3.00  |       0|       4|      10|      25|      14|        53
high              |     1.4|    16.4|    16.2|    15.3|     3.7|     13.9%
          Column       10      118      117      110       27        382
           Total     2.6%    30.9%    30.6%    28.8%     7.1%     100.0%

      Chi-Square               Value            DF          Significance
-------------------         ---------          ----        --------------
Pearson                     172.28960            8             .00000
Likelihood Ratio            184.69478            8             .00000
Linear-by-Linear            133.19350            1             .00000
     Association

Minimum Expected Frequency - 1.387
Cells with Expected Frequency < 5 -      3 of 15 (20.0%)
                                                                Approximate
       Statistic            Value        ASE1       Val/ASE0    Significance
-------------------        -------      ------     ---------   --------------
Phi                         .67158                                 .00000
Cramer's V                  .47488                                 .00000
Contingency Coefficient     .55752                                 .00000

Number of Missing Observations:    86
```

The computed value of Pearson chi-square (172.28960) was greater than the critical value of chi-square (15.51), and the significance of chi-square (.00000) was less than α (.05), so this relationship was statistically significant. The value of Cramer's V was .47488, so this relationship was strong. The increase of the mean job-levels with education levels in Table 15 indicated a positive relationship. In Sunday Schools of Hong Kong Chinese Baptist churches, as the adult learners' education levels increased, their job levels increased. This relationship affected their self-directed learning readiness scores.

7b. The relationship between adult learners' scores and age was investigated. The mean scores of adult learners with different age groups are listed in Table 16. The graph of mean score by adult learner's age is shown in Figure 8.

Table 16. Mean Scores of Adult Learners with Different Age Groups

Adult Learner's Age	No. of Cases	Mean Score
21-29	110	203.54
30-39	180	207.81
40-49	130	206.58
50-59	26	209.23
60/above	22	199.00
Total	468	206.13

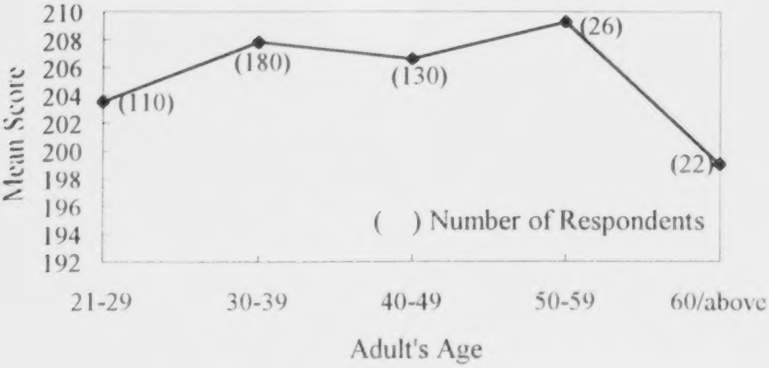

Fig. 8. Mean Score by Adult's Age

A chi-square test was performed to find the relationship etween adult learners' score classification and different age groups The statistical output is shown in Output 7b.

The computed value of Pearson chi-square (11.11221) was ss than the critical value of chi-square (15.51), and the ignificance of chi-square (.19542) was greater than α (.05), so is relationship was not statistically significant. In Sunday hools of Hong Kong Chinese Baptist churches, the self-directed arning readiness scores of adult learners had no significant lationship with their age.

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Output 7b. Chi-Square Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Age Groups

```
GPSCORE   Adult Score Classification   by   AGE

                    AGE
          Count    |21-29     30-39     40-49     50-59     60/above
          Exp Val  |                                                  Row
GPSCORE            |    2.00|     3.00|     4.00|     5.00|     6.00|  Total
                   +--------+---------+---------+---------+---------+
           1.00    |    34  |     44  |     43  |      5  |      9  |    135
low                |   31.7 |    51.9 |    37.5 |     7.5 |     6.3 |  28.8%
                   +--------+---------+---------+---------+---------+
           2.00    |    50  |     76  |     44  |     11  |      5  |    186
medium             |   43.7 |    71.5 |    51.7 |    10.3 |     8.7 |  39.7%
                   +--------+---------+---------+---------+---------+
           3.00    |    26  |     60  |     43  |     10  |      8  |    147
high               |   34.6 |    56.5 |    40.8 |     8.2 |     6.9 |  31.4%
                   +--------+---------+---------+---------+---------+
          Column       110       180       130        26        22       468
           Total     23.5%     38.5%     27.8%      5.6%      4.7%    100.0%

      Chi-Square                     Value          DF         Significance
----------------------            ----------       -----       ------------
Pearson                           11.11221           8            .19542
Likelihood Ratio                  11.58891           8            .17051
Linear-by-Linear                    .43443           1            .50982
     Association

Minimum Expected Frequency - 6.346
                                                                Approximate
      Statistic                 Value        ASE1      Val/ASE0  Significance
----------------------         -------      -----     --------  ------------
Phi                             .15409                              .19542
Cramer's V                      .10896                              .19542
Contingency Coefficient         .15229                              .19542

Number of Missing Observations:   0
```

7c. Among the adult learner respondents were 458 Christians and 10 non-Christians. With respect to the number of years as Christians, the Christian adult learners were divided into four groups: group one with years of 4 or less, group two with years of 5 to 9, group three with years of 10 to 19, and group four with years 20 or above. Group one had 97 adults, group two had 112 adults, group three had 119 adults, group four had 98 adults, and 32 adults gave no answer.

The mean scores of adult learners with different numbers of years as Christians are listed in Table 17. The graph of mean score by adult learner's Christian years is shown in Figure 9.

Table 17. Mean Scores of Adult Learners with Different Numbers of Years as Christians

Adult Learner's Years as Christian	No. of Cases	Mean Score
4/less	97	200.90
5-9	112	203.35
10-19	119	208.96
20/above	98	210.74
Total	426	206.06

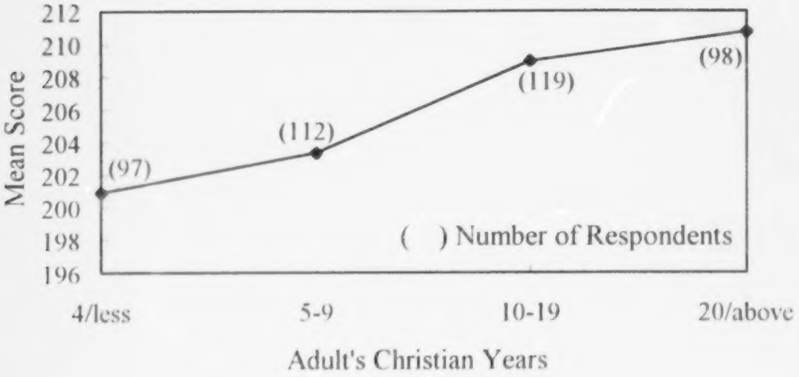

Fig. 9. Mean Score by Adult's Christian Years

A one-way analysis of variance test was performed to compare the mean scores of groups one to four. The statistical outputs are shown in Output 7c(i) and Output 7c(ii).

In Output 7c(i) the Levene Test showered that the 2-tail significance (.212) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid here.

The computed value of F-ratio (4.6171) was greater than the critical value of F-ratio (2.6049). The F prob. (.0034) was less than our level of significance α (.05). So there were differences in certain pairs of mean scores.

Output 7c(i). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Numbers of Years as Christians

```
                              ----- O N E W A Y -----

      Variable SCORE
   By Variable ADULT'S CHRISTIAN YEARS

Levene Test for Homogeneity of Variances

      Statistic      df1      df2      2-tail Sig.
       1.5077         3       422         .212

                              Analysis of Variance

                                      Sum of           Mean           F          F
          Source           D.F.       Squares          Squares        Ratio      Prob.
Between Groups               3       6559.7318        2186.5773      4.6171     .0034
Within Groups              422     199851.8011         473.5825
Total                      425     206411.5329
```

In Output 7c(ii) the Duncan test indicated significant differences between three pairs of mean scores of the adult learners with the following number of years as Christians:

--4 or less and 10-19

--4 or less and 20 or above

--5-9 and 20 or above

The increase of the mean scores with adult learners' years as Christians in Table 17 also indicated a positive relationship.

Output 7c(ii). Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Adult Learners with Different Numbers of Years as Christians: Duncan Test

```
Multiple Range Tests:   Duncan test with significance level .05
Harmonic Mean Cell size = 105.6935

  The actual range used is the listed RANGE * 2.1168
  with the following value(s) for RANGE:

 Step        2        3        4
 RANGE     2.79     2.93     3.02

  (*) Indicates significant differences which are shown in the lower triangle

                                2
                                0
                     4          /
                     /       1  a
                     l       0  b
                     e  5    -  o
                     s  -    1  v
                     s  9    9  e
    Mean     XNYR
  200.8969   4/less
  203.3482   5-9
  208.9580   10-19   *
  210.7449   20/above *  *
```

8a. Among the youth learner respondents were 64 males and 76 females. A t-test for the above two independent samples was performed to compare their mean scores. The statistical output is shown in Output 8a.

Output 8a. T-Test for the Self-Directed Learning Readiness Scores of Male and Female Youth Learners

t-tests for Independent Samples of YOUTH'S GENDER

Variable	No. of Cases	Mean Score	SD	SE of Mean
Male	64	193.8750	18.340	2.293
Female	76	192.5263	21.971	2.520

Mean Difference = 1.3487
Levene's Test for Equality of Variances: F= 2.399 P= .124

t-test for Equality of Means

Variances	t-value	df	2-Tail Sig	SE of Diff	95% CI for Diff
Equal	.39	138	.697	3.460	(-5.493, 8.190)
Unequal	.40	137.99	.693	3.407	(-5.388, 8.085)

In the Levene's Test for equality of variances, P (.124) was greater than our level of significance α (.05). So the variances were equal. The computed value of t (.39) was less than the critical value of t (1.960). The 2-tail significance (.697) was greater than α (.05). The 95% CI for diff. (-5.493, 8.190) included the value of 0. All these results indicated that the difference in mean scores was not statistically significant. On the average, there was no significant difference in self-directed learning readiness scores between male and female youth learners in Sunday Schools of Hong Kong Chinese Baptist churches.

8b. Among the respondents were 49 youth learners with age 12-15 and 91 youth learners with age 16-20. A t-test for the above two independent samples was performed to compare their mean scores. The statistical output is shown in Output 8b.

Output 8b. T-Test for the Self-Directed Learning Readiness Scores of Youth Learners with Different Age Groups

```
t-tests for Independent Samples of YOUTH'S AGE

Variable        No. of Cases     Mean Score          SD     SE of Mean
16-20                91           195.6264        21.061         2.208
12-15                49           188.5306        18.220         2.603

        Mean Difference = 7.0958
        Levene's Test for Equality of Variances: F=  .750     P=  .388

t-test for Equality of Means
                                                                  95%
Variances    t-value      df    2-Tail Sig    SE of Diff     CI for Diff
Equal          1.99      138         .049         3.565    ( .047, 14.144)
Unequal        2.08   111.21         .040         3.413    ( .333, 13.859)
```

In the Levene's Test for equality of variances, P (.388) was greater than our level of significance α (.05). So the variances were equal. The computed value of t (1.99) was greater than the critical value of t (1.960). The 2-tail significance (.049) was less than α (.05). The 95% CI for diff. (.047, 14.144) did not include the value of 0. All these results indicated that the difference in mean scores was statistically significant. On the average, the self-directed learning readiness scores of youth learners with age 16-20 were higher than those of youth learners with age 12-15 in Sunday Schools of Hong Kong Chinese Baptist churches.

8c. Concerning the education levels, 1 youth learner was of primary level, 117 youth learners were of secondary level, 7 of post-secondary level, and 15 of university level. The one youth learner of primary level was combined with those of secondary level.

The mean scores of youth learners with different education levels are listed in Table 18. The graph of mean score by youth learner's education level is shown in Figure 10.

Table 18. Mean Scores of Youth Learners
with Different Education Levels

Youth Learner's Education Level	No. of Cases	Mean Score
Secondary	118	194.09
Postsecondary	7	196.71
University	15	184.00
Total	140	193.14

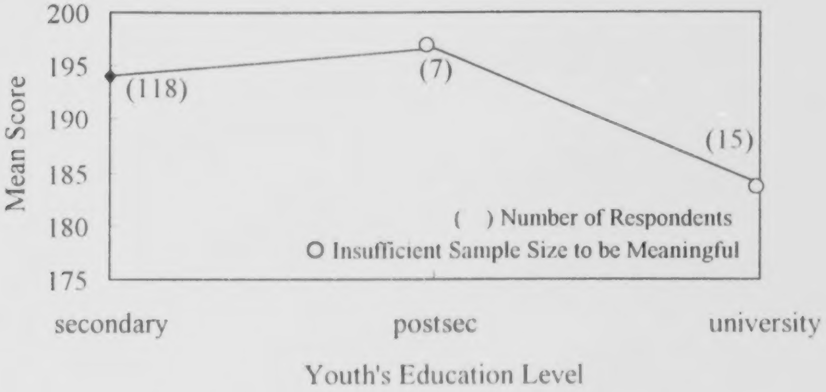

Fig. 10. Mean Score by Youth's Education Level

A one-way analysis of variance test was performed to compare the mean scores of secondary to university level learners. The statistical output is shown in Output 8c.

In the Levene Test the 2-tail significance (.344) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid.

The computed value of F-ratio (1.7731) was less than the critical value of F-ratio (2.9957). The F probability (.1737) was greater than our level of significance α (.05). The Duncan test also showed that no two groups were significantly different at the .05 level. In Sunday Schools of Hong Kong Chinese Baptist churches, there was no significant difference in the self-directed learning readiness scores among youth learners with different education levels.

Output 8c. Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Youth Learners with Different Education Levels

```
                              ----- O N E W A Y -----

       Variable SCORE
     By Variable YOUTH'S EDUCATION LEVEL

Levene Test for Homogeneity of Variances

        Statistic      df1       df2        2-tail Sig.
         1.0750          2       137            .344

                                    Analysis of Variance

                                    Sum of             Mean            F           F
            Source          D.F.    Squares            Squares         Ratio       Prob.
Between Groups                2      1449.7397          724.8699       1.7731      .1737
Within Groups               137     56007.4031          408.8132
Total                       139     57457.1429

Multiple Range Tests:   Duncan test with significance level .05
Harmonic Mean Cell size = 13.7616

   The actual range used is the listed RANGE * 5.4504
   with the following value(s) for RANGE:

Step          2        3
RANGE       2.80     2.95

— No two groups are significantly different at the   .050 level
```

8d. Among the youth learners were 133 Christians and 7 non-Christians. With respect to the number of years as Christians, he Christian youth learners were divided into three groups: group one with years of 3 or less, group two with years of 4 to 6, and group three with years of 7 or above. Group one had 36 youth learners, group two had 36 youth learners, group three had 42 youth learners, and 19 youth learners gave no answer.

The mean scores of youth learners with different numbers of years as Christians are listed in Table 19. The graph of mean score by youth learner's Christian years is shown in Figure 11.

Table 19. Mean Scores of Youth Learners with Different Numbers of Years as Christians

Youth Learner's Years as Christian	No. of Cases	Mean Score
3 or less	36	194.31
4-6	36	198.72
7 or above	42	191.69
Total	114	194.74

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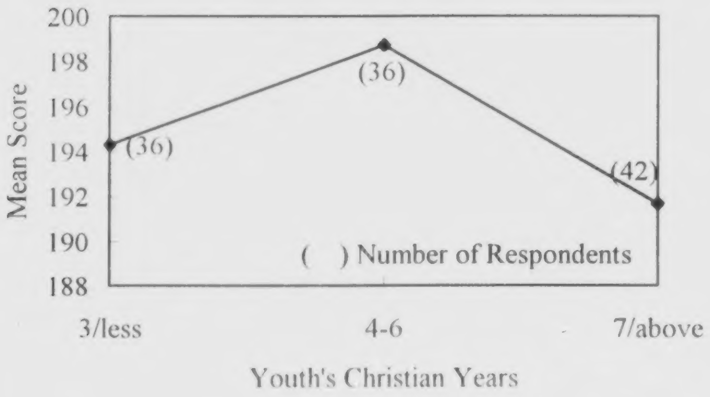

Fig. 11. Mean Score by Youth's Christian Years

A one-way analysis of variance test was performed to compare the mean scores of groups one to three. The statistical output is shown in Output 8d.

In the Levene Test the 2-tail significance (.79) was greater than α (.05). Therefore the variances were homogeneous and the one-way analysis of variance test was valid here.

The computed value of F-ratio (1.0517) was less than the critical value of F-ratio (3.0718). The F prob. (.3528) was greater than our level of significance α (.05). The Duncan test also showed that no two groups were significantly different at the .050 level. On the average, there was no significant difference in the self-directed learning readiness scores among youth learners with

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different numbers of years as Christians in Sunday Schools of Hong Kong Chinese Baptist churches.

Output 8d. Analysis of Variance Test for the Self-Directed Learning Readiness Scores of Youth Learners with Different Numbers of Years as Christians

```
                        - - - - -  O N E W A Y  - - - - -

     Variable SCORE
   By Variable YOUTH'S CHRISTIAN YEARS

  Levene Test for Homogeneity of Variances

       Statistic      df1      df2      2-tail Sig.
        .2365          2       111         .790

                              Analysis of Variance

                                   Sum of          Mean          F          F
        Source           D.F.      Squares        Squares      Ratio      Prob.
  Between Groups           2       968.2680       484.1340     1.0517     .3528
  Within Groups          111     51097.8373       460.3409
  Total                  113     52066.1053

  Multiple Range Tests:   Duncan test with significance level .05
  Harmonic Mean Cell size = 37.8000

     The actual range used is the listed RANGE * 3.4897
     with the following value(s) for RANGE:

    Step          2         3
    RANGE       2.81      2.95

  -- No two groups are significantly different at the    .050 level
```

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Conclusion

According to the results of the above statistical tests, the five major hypotheses in this study were accepted. In Sunday Schools of Hong Kong Chinese Baptist churches, firstly, the self-directed learning readiness mean score of adult learners' self-ratings was higher than that of teachers' ratings on the adult learners. Secondly, the self-directed learning readiness mean score of adult learners was higher than that of youth learners. Thirdly, there was no significant difference in the self-directed learning readiness mean scores between male and female adult learners. Fourthly, the self-directed learning readiness scores of adult learners had a positive and moderate relationship with their education levels. Fifthly, the self-directed learning readiness scores of adult learners had a positive and strong relationship with their job levels. Besides the tests for the hypotheses, additional analysis also showed useful results. More interpretations of these statistical results are discussed in the next chapter.

CHAPTER 4

INTERPRETATIONS AND RECOMMENDATIONS

Interpretations

The results of the statistical analysis should enlighten and challenge the Chinese churches in Hong Kong regarding the phenomenon of self-directed learning as a means of educating adult learners. The interpretations of the results of analysis are presented in the order of the hypotheses and the additional analysis.

Hypothesis 1

From the test result of hypothesis 1, adult Sunday School teachers underestimated the self-directed learning readiness of adult learners. This result reveals the teachers' lack of understanding of the adult learners. Since a good teacher should understand his or her students and match the teaching approach accordingly, the lack of understanding will result in unsatisfactory teaching, which is a great problem. Some Sunday School directors told the researcher that their teachers found the questionnaires rather difficult to answer, so some teachers gave up returning the answered questionnaires. A few teachers commented at the end of their questionnaires that they did not understand their students well enough to answer the questions. Thus, the need of improving teacher's understanding of adult learners, especially their self-directed learning readiness, is necessary.

Moreover, when the self-directed learning readiness of adults in the church is underestimated, their potential is ignored and their human resources are not fully utilized in the church. The church will find it worthwhile to recognize the self-directed learning readiness of the adult members and hence develop their human resources.

Hypothesis 2

From the test result of hypothesis 2, adult learners exhibited higher self-directed learning readiness than youth learners. This result implies that self-directed learning is a characteristic of adult learning. Therefore, teachers should not just copy the methods and approaches of teaching youth to teach adults. There seems to be a misunderstanding that teachers trained in schools of education to teach primary and secondary school students will automatically know how to teach adult learners. Meanwhile, adult learners, being treated like youth, may feel suppressed and then may withdraw from attending the Sunday Schools. So teachers should realize that adults are more self-directing and use teaching methods and approaches which suit adult learners.

However, the self-directed learning readiness mean score (206.1) of adult learners in this study is lower than the norm (214) of American adults. In the Chinese culture, the order of seniority is important and the students are regarded as inferior to the teachers. The students should be submissive to their teachers and should not act too freely. So the students become more passive. Besides the cultural difference, the education policies and system in Hong Kong are also different from those in the United States. The traditional spoon-feeding teaching approach in Hong Kong schools has hindered self-directed learning since childhood.

Hypothesis 3

The test result of hypothesis 3 showed no significant difference in self-directed learning readiness mean scores between genders of adult learners. In the past, some researches showed that females exhibited higher self-directed learning readiness than males.[104] However, Chinese women are more reserved than men, and hence not so self-directing. Besides, the education levels and job levels of females in this study were lower than those of males. Thus females' self-directed learning readiness would be lower. This was revealed in the tests for hypotheses 4 and 5.

Hypothesis 4

The test result of hypothesis 4 showed a positive and moderate relationship between adult learners' self-directed learning readiness mean scores and their five education levels. This result is consistent with past research results.[105]

In the sample more adult learners were of secondary and postsecondary education. This reflects the fact that usually more adults with secondary or postsecondary education than adults with university or postgraduate education attend the Sunday Schools.

In the sample a greater percentage of females had primary and secondary education levels than males. This ratio has resulted in the self-directed learning readiness mean score of females being lower than that of males.

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[104] Long and Morris, "Self-Directed Learning Readiness and Academic Performance," 149; Cheong, Lee, and Long, 275.

[105] Roberts, 109; Herbeson, "Level of Education," 196-201; Durr, 87-88.

Hypothesis 5

The test result of hypothesis 5 showed a positive and strong relationship between adult learners' self-directed learning readiness mean scores and their three job levels. Previous research was performed on different management levels in a company.[106] This study tested the job levels in the context of Hong Kong society. The results are consistent.

In the sample more adult learners worked at middle job level. This reflects the fact that usually more adults with middle job level than adults with low or high job level attend the Sunday Schools.

In the sample a greater percentage of females worked at low and middle job levels than males. This ratio has resulted in the self-directed learning readiness mean score of females being lower than that of males.

Additional Findings

Test 6: Teachers' Variables

(a) Number of years of teaching adult Sunday Schools

The test result showed no significant difference in the ratings of adult learners' self-directed learning readiness scores among teachers with different numbers of years of teaching adult

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[106] Roberts, 103.

Sunday Schools. Thus the experience of teaching adult Sunday Schools does not help teachers to understand more of adult learners' self-directed learning readiness.

(b) With and without adult Sunday School teacher training

The test result showed no significant difference in the ratings of adult learners' self-directed learning readiness scores between teachers with and without teacher training in adult Sunday Schools. The answers to the next question in the questionnaire showed that 92% of the responding teachers did not know Knowles' adult education theory. These answers reveal that the quality of teacher training is inadequate to equip teachers to understand the characteristics of adult learning. The lack of suitable Chinese text books on adult education and qualified adult educators in Hong Kong churches may be the main reasons. Furthermore, the fact that 52% of the responding teachers did not have adult Sunday School teacher training also showed a problem. In the secular sector in Hong Kong, primary schools and secondary schools demand that their teachers receive teacher training. However, the churches have been too lenient in the requirements of Sunday School teachers. This practice will result in low quality teaching in Sunday Schools and hinder the learning of students.

Test 7: Adult Learners' Variables

(a) Adult learners' job levels and education levels

The test result showed a positive and strong relationship between adult learners' job levels and education levels. This relationship reinforces the results of hypotheses 4 and 5. Usually someone with a higher education level will also work on a higher job level. So the self-directed learning readiness will also increase with one's education level and job level.

(b) Adult learners' age

The test result showed no significant relationship between adult learners' self-directed learning readiness scores and their age. This result is consistent with previous research results in the literature.[107] The adults have usually reached a steady stage and do not change much as they grow older.

(c) Adult learners' Christian years

The test result showed a significant increase in the self-directed learning readiness scores for adult learners with ten years or above in being Christians. This result deserves further investigation. In Hong Kong Chinese churches, many experienced

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[107] Roberts, 107; Durr, 89-90.

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adult Christians have to bear various posts, for example, deacons, in the church. Also, many become Sunday School teachers. The rest are less active in the church because they are busy in their careers or families. So the experienced adult Christians attending Sunday Schools are particularly willing to learn. They are courageous enough to be so humble and make an effort to spend time learning in Sunday Schools.

Test 8: Youth Learners' Variables

(a) Youth learners' gender

The test result showed no significant difference in the self-directed learning readiness scores between genders of youth learners. This result is consistent with the result obtained for adult learners.

(b) Youth learners' age

The test result showed that youth learners of age 16-20 exhibited higher self-directed learning readiness than those of age 12-15. This result is consistent with past research result.[108] Since the youth are growing fast, the trait of self-directed learning readiness continues to develop until they reach adulthood.

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[108] Long, Redding, and Eisenman, "SDLRS Scores at the 5th, 8th, and 11th Grades," 34-36.

(c) Youth learners' education levels

The test result showed no significant difference in the self-directed learning readiness scores among youth learners of different education levels. This result has to be interpreted with caution because the sizes of samples of postsecondary and university levels are too small to be significant.

(d) Youth learners' Christian years

The test result showed no significant difference in the self-directed learning readiness scores among youth learners with different numbers of Christian years. The Christian faith of youth is not very steady to influence their motivation for self-directed learning.

Recommendations

Based on the foregoing results and interpretations, the following recommendations are given for the Hong Kong Chinese churches to enhance adults' self-directed learning. These recommendations will be discussed from five aspects: instructors, adult learners, methods of instruction, church administration, and Chinese educators. Further research projects are also suggested.

Instructors

Resistance to Learners' Self-Directed Learning

Firstly, the resistance will be due to the instructors' lack of understanding of adult learners. They do not trust that their students can be self-directing. Many instructors teach in the way as they were taught previously. Hence they simply use the traditional spoon-feeding method. Some instructors just teach adults in the same way as for youth.

Secondly, instructors may have the fear of losing control. They prefer to act as authority or experts, who cannot be challenged by students. Some instructors lack the ability to cope with new methods. In Hong Kong churches, some adult Sunday School instructors are relatively young (age 21-35) and they are not confident enough to teach adults older than themselves.

Thirdly, instructors may lack time to prepare for new methods and new materials. Many Chinese Sunday School materials in Hong Kong are quite old. Instructors just use them without new modification. The above resistances must be overcome.

Receive Adequate Training

This survey showed that 52% of the responding teachers had not received adult Sunday School teacher training. In principle, all adult Sunday School teachers should receive proper training. Some teachers who have received training in the schools of education to teach primary or secondary school students may think that they know how to teach adults. However, actually they do not know the characteristics of adult learners, for example, self-directed learning. So they should also receive training in how to teach adults. Those teachers who have taught adult Sunday Schools for many years should also receive in-service training to update their knowledge of adult learning theories. They should know Malcolm Knowles' Theory and other modern adult education theories.

Transform the Student-Teacher Relationship

The instructors must be willing to transform their status from teacher to facilitator, from expert to co-learner. Thus they can establish a relationship of shared control with adult learners. The instructors must try their best to understand each individual student. Personal and informal contacts with students outside classtime are necessary. This practice may be time-consuming at the start, but is worthwhile in the long run. After mutual trust between instructors and students has been established, the teaching will be effective.

Have Long-Term Commitment in Teaching the Same Class

When the researcher asked the Hong Kong Chinese Baptist churches about their number of adult Sunday School teachers, a number of churches replied that many teachers took turns in teaching and many teachers just taught for a short period. In such case, the instructor could not understand the learners. Therefore, it is better for the instructor to teach the same class for a longer period, at least one year. Then the instructor may have time to have a deeper understanding of the learners, promote their self-directed learning, and perform the function of a facilitator.

Help Learners in Self-Directed Learning

The Self-Directed Learning Readiness Scale consists of eight characteristics in describing the self-directed learner: 1) openness to learning opportunities, 2) self-concept as an effective learner, 3) initiative and independence in learning, 4) informed acceptance of responsibility for one's own learning, 5) love of learning, 6) creativity, 7) future orientation, and 8) problem solving skills.[109] The instructor should help the learners develop these eight characteristics.

The instructor should also help the learners develop educational plans and learning skills, and know how to investigate options, opportunities and resources. Finally, the instructor should help the learners create and control effective learning environment.

Learners

Awareness of Their Self-Directed Learning Readiness

Hong Kong Chinese adult learners may not be aware of their self-directed learning readiness. This unawareness is possibly due to low confidence and poor self-concept. They are conditioned by previous school experiences, where teachers were authorities to whom they had to submit. They are used to relying on teachers, and do not want to take more responsibility or participate in learning. Since the mean score of adult learners in this study is below that of American adult norm, adult learners in Hong Kong Chinese churches should develop their self-directed learning readiness.

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[109] Lucy M. Guglielmino, "Development of the Self-Directed Learning Readiness Scale," 61-70.

Self-Improvement in Self-Directed Learning

In order to develop one's self-directed learning readiness, one should notice the eight characteristics in the Self-Directed Learning Readiness Scale. One should exercise self-reflection and improve oneself in these eight aspects. Besides, one should learn to participate in the planning of learning process, assume autonomy, and share control.

Learning with Peers

Instead of just relying on teachers, one can learn together with peers. One may discuss and share information with other members. With peer reflection and judgement, participants may learn from one another.

Using Resources

A self-directed learner should know how to find and utilize various resources for learning. The resources include libraries, computer technology, mass media, and community service.

Methods of Instructions

Staged Self-Directed Learning

The instructor should understand each learner's stage of self-directed learning and match the teaching styles accordingly as in Table 20.[110] The instructor should also help the learners advance toward greater self-direction.

Table 20. The Staged Self-Directed Learning Model

Stage	Student	Teacher
1	Dependent	Authority, Coach
2	Interested	Motivator, Guide
3	Involved	Facilitator
4	Self-directed	Consultant, Delegator

Before the Course

The instructor should increase the use of self-directed learning methods in the course of instruction. Before the course, the instructor or the Sunday School director may ask the adult learners what they would like to learn in the coming quarter(s) and then plan the curriculum accordingly. The instructor may also ask the learners to plan how to learn in the course. The learners may choose the proportion of time for being led by the teacher, or led by classmates in turn, or other formats. Involving the learners in the planning of what and how to learn will link the course objectives to learners' awareness of their spiritual needs. Learning becomes a means to solve learners' real problems.

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[110] Grow, "Teaching Learners to be Self-Directed," 125-149.

After collecting all the opinions from the learners, the instructor will prepare in detail the course outline. This outline will be given to the learners for their response if they agree or if they want to make amendments. Such a plan will help the learners to be intrinsically motivated to join the course.

During the Course

The instructor should construct opportunities for interactive and cooperative learning. The atmosphere is non-threatening for the learners to ask questions, voice opinions, even make mistakes. Adult learners would like to be respected. They enjoy learning through interaction with teachers and classmates.

The instructor should remind the learners that they have to be responsible for their learning. The instructor need not tell the learners exactly what to do, but encourage the learners to find out the resources and solution by themselves.

The instructor should encourage learners' self-reflection and independent thinking. Journal writing and then sharing in class will be helpful. The learners would like to find that the lesson learned in class is useful to their real life situation. Peer-reflection will also help the learners to think more widely.

The instructor may assign group projects for the learners to do whereby the learners will find the materials needed, investigate the issues, and then present their findings in class. In the group, each member has to take initiative to give opinions, to cooperate, and to work on one's own part. The group experience and presentation will encourage learners' autonomy, sharing control, and mutual teaching.

The instructor may use an action-oriented approach with feedback and greater student involvement. Such an approach will help the learners develop new attitudes and implement new behavior.

At the End of the Course

Since the church Sunday Schools do not require a grading system for the learners' academic achievement, evaluation may be more free. The learners may be asked to write self-evaluation of what they think they have learned in the course, not just cognitive knowledge, but also change in attitudes and behavior. The self-evaluation should be kept confidential between the learner and the instructor. The instructor will meet the learners personally and talk with them individually about their progress. Learners' individual differences in learning pace and achievement should be allowed.

Models of Instruction

A number of self-directed learning models of instruction were mentioned in the synthesis of related literature in Chapter 1. Instructors can adapt some of the models to enhance the self-directed learning of their students, for example, problem-based learning, student-centered learning, cooperative learning, small groups, and self-help groups.

Church Administration

Value the Adult Learners' Self-Directed Learning and Human Resources Development

The church leaders should remove the prejudice that adults are too old to learn new things, but place a high value on adult learners' self-directed learning. When the self-directed learning abilities of adults are utilized, the human resources of adults in the church can be developed. This process will lead to the development of the whole church.

Involve the Adult Learners in Curriculum-Planning

Some churches have a rigid structure of curriculum, which may not be welcomed by adult learners. Therefore the adult learners can be involved in the planning of curriculum. The learners' expectations should be respected and their needs met as much as possible. More options in courses can be offered so that the adult learners can choose the courses they need.

Reduce Deterrents to Adult Participation in Learning

The attitudinal barrier that adults are too old to learn should first be removed. Teacher-centered and suppressive curriculum should be changed. Inconvenient scheduling should be improved to allow more adults to participate. Although keen Christians usually bear more leadership responsibility, the church should not make them so busy in Christian service that they have no time to learn. Breaks can be given to them to equip themselves so that they may better serve the church after their studies.

Offer Conducive Environments to Self-Directed Learning

The atmosphere should let the learners feel comfortable in self-directed learning. Learners' autonomy and control are permitted. Church administrators should let the adult learners feel that the results of their learning are valued. The church should also provide resources required for self-directed learning.

Offer Better Training to Adult Sunday School Teachers

Pre-service training and in-service training for adult Sunday School teachers are needed. Qualified trainers should be invited. Several churches can join together to organize the training course and to share the resources.

Plan a Long-Term Staff Development Program

Church administrators should urge the instructors to have long-term commitment in teaching adult Sunday Schools so that they will better understand the learners. A stable instructor is necessary for establishing good relationship with the learners and promoting their self-directed learning. Besides, mutual help among instructors should be encouraged. Observations of classes and exchange of experiences among instructors for improving teaching techniques can help the instructors to practise self-directed learning as well.

Chinese Educators

Impact the Chinese Culture with Self-Directed Learning

Although this research was primarily done in the Hong Kong Chinese Baptist churches, the results can be applied to the context of Hong Kong Chinese people in general because the Chinese Christians and other Chinese people have no cultural barriers. In the Chinese culture, the students are regarded as inferior to the teachers and should be submissive to the teachers. Although the Self-Directed Learning Readiness Scale is a western instrument, this research reveals that the Chinese adults do have self-directed learning readiness. Such finding impacts the negative concept of students' dependence on teachers in the Chinese culture. The Chinese culture should shift to give more autonomy and responsibility to the students. Chinese educators can study how to improve the impact of self-directed learning readiness on the Chinese culture.

Promote Improvement of the Government Education Policies

Chinese educators can investigate the ways of improving Hong Kong education policies and system so as to promote the students' self-directed learning. They can then voice their opinions to the Hong Kong Government.

Further Research

The following research will be worthwhile to pursue further:

1. The comments of adult members on the Sunday Schools, including their expectations and disappointments, can be investigated. Their motivation factors for participating in adult Sunday Schools can be identified.

2. Since only a small number of older adults participated in this study, another survey on older adults' self-directed learning readiness can be done. In many churches, the older adult Sunday School classes have good and stable attendance. So the self-directed learning readiness of older adults is worthwhile to study.

3. Since the responding teachers with or without adult Sunday School teacher training gave no significant difference in their ratings of self-directed learning readiness of the learners, the training offered to adult Sunday School teachers in Hong Kong Chinese churches should be investigated and ways of improvement sought.

4. Since the adult learners' self-directed learning readiness scores are positively related to their number of years as Christians,

this raises the question of whether spiritual maturity is related to self-directed learning. This issue is worthwhile to be studied.

5. A comparison of the concept of learning in the Chinese culture with that in the American culture can be made. Hence the influence of the Chinese culture on the learners' self-directed learning can be studied.

6. A comparison of the education policies and system in Hong Kong with those in the United States can be made. Hence the influence of Hong Kong education policies and system on the self-directed learning of students can be identified.

Summary

This study was designed to determine if there was any relationship between self-directed learning readiness of adult learners and selected variables in Sunday Schools of Hong Kong Chinese Baptist churches. Based on the samples tested in this study, the five major hypotheses were accepted. Firstly, the self-directed learning readiness mean score of adult learners' self-ratings was higher than that of teachers' ratings on the adult learners. Secondly, the self-directed learning readiness mean score of adult learners was higher than that of youth learners. Thirdly, there was no significant difference in the self-directed learning readiness mean scores between male and female adult learners. Fourthly, the self-directed learning readiness scores of adult learners had a positive relationship with their education levels. Fifthly, the self-directed learning readiness scores of adult learners had a positive relationship with their job levels.

There were several additional findings using other demographic variables available in the questionnaires. For the teachers, there was no significant difference in the self-directed learning readiness mean scores of the ratings of adult learners by teachers with different numbers of teaching years in adult Sunday Schools. More importantly, there was no significant difference in the self-directed learning readiness mean scores of the ratings of adult learners by teachers with or without teacher training in adult Sunday Schools. More than half of the responding teachers replied that they had not received adult Sunday School teacher training, and most of the responding teachers replied that they did not know Malcolm Knowles' adult education theory.

Concerning the adult learners, there was a positive relationship between the adult learners' education levels and job levels, which reinforced hypotheses 4 and 5. The self-directed learning readiness scores of adult learners had no significant relationship with their age, but had a positive relationship with their number of years as Christians.

Concerning the youth learners, there was no significant difference in self-directed learning readiness mean scores between genders of youth learners. The self-directed learning readiness scores of youth learners had a positive relationship with their age. However, the self-directed learning readiness scores of youth learners had no significant relationship with their education levels and their number of years as Christians.

The results reveal that adult Sunday School teachers have underestimated the self-directed learning readiness of adult learners. Teachers lack the understanding of their learners, and their training is inadequate. Adult learners exhibit higher self-directed learning readiness than youth learners, therefore we cannot teach adults as we teach youth. The education levels and job levels of adult learners can be indicators of their self-directed learning readiness. Chinese women are of lower education levels and job levels than men, and hence are not more self-directing than men. It is also interesting to note that the experienced Christians attending adult Sunday Schools have higher self-directed learning readiness.

Recommendations were made for the Hong Kong Chinese churches to enhance self-directed learning of their adult learners. Instructors have to overcome resistance to learners' self-directed learning, receive adequate training, transform the student-teacher relationship, have long-term commitment to students, and help learners in self-directed learning. On the other hand, adult learners have to increase their awareness of their self-directed learning readiness, improve their self-directed learning, learn from peers, and use resources for learning. Instructors have to improve the methods of instruction to more self-directed learning throughout the course. The higher level of church administration has to place greater value on adult self-directed learning, involve adult learners in planning the curriculum, reduce deterrents but offer conducive environments to self-directed learning, offer better training and long-term development program for adult Sunday School teachers. In addition, Chinese educators can impact the Chinese culture with self-directed learning and urge the Hong Kong Government to improve the education policies and system to enhance self-directed learning.

Further research was suggested for investigating the motivations of adult learners to join the adult Sunday Schools, older adults' self-directed learning, adult Sunday School teacher training, and relationship between spiritual maturity and self-directed learning. Furthermore, the influence of the Chinese culture and Hong Kong education policies on self-directed learning of students can also be studied.

Conclusion

This study showed that in Sunday Schools of Hong Kong Chinese Baptist churches the self-directed learning readiness of adult learners was underestimated by teachers. Adult learners' self-directed learning readiness was higher than that of youth learners. There was no significant difference in self-directed learning readiness between genders of adult learners. Adult learners' self-directed learning readiness had positive relationships with their education levels and job levels.

The underestimation of adult learners' self-directed learning readiness has a significant effect because the human resources of adults in churches are not fully utilized. The additional findings also reveal the lack and inadequacy of training given to adult Sunday School teachers. This problem will result in deterrents of adult learning in churches.

Today's rapidly changing world has dramatically affected the life of everyone. Adult Christians should be more self-directing to learn new knowledge so as to cope with new advances and hence bear witness for Christ. Moreover, the Chinese churches always complain of the manpower shortage in church work. Self-directed learning method is an effective way to develop the potential of adults. Therefore, church instructors and administrators should cooperate to promote the self-directed learning of Christian adults. By developing the human resources of adult members, churches will grow. The researcher hopes that this study will be helpful in the enhancement of adult self-directed learning and the development of human resources in churches.

WORKS CITED

Books

Brockett, Ralph G., and Roger Hiemstra. *Self-Direction in Adult Learning.* London: Routledge, 1991.

Candy, Philip C. *Self-Direction for Lifelong Learning.* San Francisco: Jossey-Bass, 1991.

Confessore, Gary J., and Huey B. Long. *Abstracts of Literature in Self-Directed Learning 1983-1991.* Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1992.

Cramer, Duncan. *Introducing Statistics for Social Research.* London: Routledge, 1994.

Guglielmino, Lucy M., and Paul J. Guglielmino. *The Learning Preference Assessment.* King of Prussia, Pennsylvania: Organization Design and Development, 1991.

Hammond, Merryl, and Rob Collins. *Self-Directed Learning: Critical Practice.* London: Kogan Page, 1991.

Healey, Joseph F., Earl R. Babbie, and Fred Halley. *Exploring Social Issues: Using SPSS for Windows.* Thousand Oaks, California: Pine Forge, 1997.

Houle, Cyril O. *The Inquiring Mind.* Madison: University of Wisconsin, 1961.

Knowles, Malcolm S. *The Modern Practice of Adult Education.* New York: Association Press, 1970.

________. *Self-Directed Learning.* New York: Association Press, 1975.

_________. *The Adult Learner: A Neglected Species*. 4th ed. Houston: Gulf, 1990.

Long, Huey B., and Gary J. Confessore. *Abstracts of Literature in Self-Directed Learning 1966-1982*. Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1992.

Long, Huey B., and Terrence R. Redding. *Self-Directed Learning Dissertation Abstracts 1966-1991*. Norman: Oklahoma Research Center for Continuing Professional and Higher Education, 1991.

Sanders, Donald H. *Statistics: A First Course*. 5th ed. New York: McGraw Hill, 1995.

Schultz, Duane P., and Sydney E. Schultz. *A History of Modern Psychology*. 6th ed. Fort Worth, Texas: Harcourt Brace College, 1996.

Tough, Allen. *Learning Without a Teacher: A Study of Tasks and Assistance during Adult Self-Teaching Projects*. Toronto: The Ontario Institute for Studies in Education, 1967.

_________. *The Adult's Learning Projects*. 2d ed. Toronto: The Ontario Institute for Studies in Education, 1979.

Yount, Rick. *Research Design and Statistical Analysis for Christian Ministry*. Fort Worth, Texas: Southwestern Baptist Theological Seminary, 1990.

Periodicals

Balfour, Danny L., and Frank Marini. "Child and Adult, X and Y: Reflections on the Process of Public Administration Education." *Public Administration Review* 51 (November-December 1991): 478-485.

Billington, Dorothy D. "Adult Learning Can Stimulate Personal Development." *Australian Journal of Adult and Community Education* 30 (April 1990): 54-63.

Brockett, Ralph G. "Methodological and Substantive Issues in the Measurement of Self-Directed Learning Readiness." *Adult Education Quarterly* 36 (Fall 1985): 15-24.

Brookfield, Stephen D. "Self-Directed Adult Learning: A Critical Paradigm." *Adult Education Quarterly* 35 (Winter 1984): 59-71.

Caffarella, Rosemary S. "Self-Directed Learning." *New Directions for Adult and Continuing Education*, no. 57 (1993): 25-35.

Caffarella, Rosemary S., and Judith M. O'Donnell. "Self-Directed Adult Learning: A Critical Paradigm Revisited." *Adult Education Quarterly* 37 (Summer 1987): 199-211.

Cranton, Patricia. "Self-Directed and Transformative Instructional Development." *Journal of Higher Education* 65 (November-December 1994): 726-744.

Delahaye, Brian L., and Heather E. Smith. "The Validity of the Learning Preference Assessment." *Adult Education Quarterly* 45 (Spring 1995): 159-173.

Fiddler, Morris B. "Teaching to Competence: Enhancing the Art of Teaching Adults." *Journal of General Education* 43 (December 1994): 289-303.

Garrison, D.R. "Critical Thinking and Self-Directed Learning in Adult Education: An Analysis of Responsibility and Control Issues." *Adult Education Quarterly* 42 (Spring 1992): 136-148.

Grow, Gerald O. "Teaching Learners to be Self-Directed." *Adult Education Quarterly* 41 (Spring 1991): 125-149.

_________. "In Defense of the Staged Self-Directed Learning Model." *Adult Education Quarterly* 44 (Winter 1994): 109-114.

Guglielmino, Paul J., and Donald G. Roberts, "A Comparison of Self-Directed Learning Readiness in U.S. and Hong Kong Samples and the Implications for Job Performance."

Human Resource Development Quarterly 3 (Fall 1992): 261-271.

Guglielmino, Paul J., Lucy M. Guglielmino, and Huey B. Long. "Self-Directed Learning Readiness and Performance in the Workplace." *Higher Education* 16 (1987): 303-317.

Herbeson, Ellen. "Self-Directed Learning and Level of Education." *Australian Journal of Adult and Community Education* 31 (November 1991): 196-201.

Hiemstra, Roger. "Helping Learners Take Responsibility for Self-Directed Activities." *New Directions for Adult and Continuing Education*, no. 64 (1994): 81-87.

Hiemstra, Roger, and Ralph G. Brockett. "Resistance to Self-Direction in Learning Can Be Overcome." *New Directions for Adult and Continuing Education*, no. 64 (1994): 89-92.

Long, Huey B. "Item Analysis of Guglielmino's Self-Directed Learning Scale." *International Journal of Lifelong Education* 6 (October-December 1987): 331-336.

Pratt, Daniel D. "Andragogy as a Relational Construct." *Adult Education Quarterly* 38 (Spring, 1988): 160-181.

Ricks, Frances. "Principles for Structuring Cooperative Education Programs." *Journal of Cooperative Education* 31 (Winter-Spring, 1996): 8-22.

Ryan, Greg. "Student Perceptions about Self-Directed Learning in a Professional Course Implementing Problem-Based Learning." *Studies in Higher Education* 18 (1993): 53-63.

Simpson, Terry. "Catering for Adult Learners." *Australian Journal of Adult and Community Education* 35 (July 1995): 91-100.

Slusarski, Susan B. "Enhancing Self-Direction in the Adult Learner: Instructional Techniques for Teachers and Trainers." *New Directions for Adult and Continuing Education*, no. 64 (1994): 71-79.

Spear, George E., and Donald W. Mocker. "The Organizing Circumstance Environmental Determinants in Self-Directed Learning." *Adult Education Quarterly* 35 (Fall 1984): 1-10.

Tennant, Mark. "The Staged Self-Directed Learning Model." *Adult Education Quarterly* 42 (Spring 1992): 164-166.

Tough, Allen. "Major Learning Efforts: Recent Research and Future Directions." *Adult Education* 28 (1978): 250-263.

Wilcox, Susan. "Fostering Self-Directed Learning in the University Setting." *Studies in Higher Education* 21 (June 1996): 165-176.

Proceedings

Baldonado, Ardelina, and Holly Clayton. "Coaching/Mentoring: Implications for the Self-Directed Learner." In New *Dimensions in Self-Directed Learning*, by Huey B. Long and Associates, 381-394. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Bedard, Rene. "A New Reality to be Fostered by Self-Directed Learning: The Adult Spiritual Experience." In New *Dimensions in Self-Directed Learning*, by Huey B. Long and Associates, 127-134. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Beitler, Michael A. "Midlife Adults in Self-Directed Learning: A Heuristic Study in Progress." In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 269-279. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Bouchard, Paul. "Self-Directed Professional and Autodidactic Choice." In *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates, 121-137. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of University of Oklahoma, 1994.

Bryan, Valerie, and Susan F. Schulz. "Self-Directed Learning in Distance Education: The Relationship between Self-Directed Learning Readiness Scores & Success in

Completing Distance Education Programs through Home-Study Training." In *New Dimensions in Self-Directed Learning,* by Huey B. Long and Associates, 135-157. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Cheong, Chija Kim, Chun Kuen Lee, and Huey B. Long. "Self-Directed Learning Readiness & Some Related Variables: A Study of Self-Educated People in Korea." In *New Dimensions in Self-Directed Learning,* by Huey B. Long and Associates, 267-276. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Cheong, Ji W., and Huey B. Long. "Small-Group-Centered Teaching & Its Effect on Students' Readiness for Self-Directed Learning: A Case Study of a Korean University Course." In *New Dimensions in Self-Directed Learning,* by Huey B. Long and Associates, 257-266. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Confessore, Gary J., and Richard W. Herrmann. "Developing Self-Efficacy among Baccalaureate Students: Pygmalion Revisited." In *Expanding Horizons in Self-Directed Learning,* by Huey B. Long and Associates, 169-181. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Confessore, Sharon J., and Dede Bonner. "Learning in Adversity: Incidence of Self-Directed Learning among Downsized Employees." In *Expanding Horizons in Self-Directed Learning,* by Huey B. Long and Associates, 87-100. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Confessore, Sharon J., and Gary J. Confessore. "Learner Profiles: A Cross-Sectional Study of Selected Factors Associated with Self-Directed Learning." In *New Ideas about Self-Directed Learning,* by Huey B. Long and Associates, 201-227. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

Coughlan, Reed, and Crystal Scriber. "Enhancing Self-Direction: An Analysis and Assessment of Motivation and Ability." In *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates, 175-186. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993.

Dejoy, Judith K., and Richard Herrmann. "Counseling Adults for Academic and Technological Self-Directed Learning: Emotional Dimensions." In *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates, 161-173. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993.

Durr, Richard, Lucy Guglielmino, and Paul Guglielmino. "Self-Directed Learning Readiness and Job Performance at Motorola." In *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates, 175-185. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

Gould III, Jay W. "Practitioners' Application of Self-Directed Learning: Education of the Department of Defense's Program Managers under the Defense Acquisition Workforce Improvement Act." In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 139-151. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Guglielmino, Lucy M. "An Examination of Self-Directed Learning Readiness and Selected Demographic Variables of Top Female Executives." In *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates, 11-22. Norman: Public Managers Center, College of Education, University of Oklahoma, 1996.

________. "Reliability and Validity of the Self-Directed Learning Readiness Scale and the Learning Preference Assessment." In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 209-221. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Guglielmino, Paul J., and Lawrence A. Klatt. "Self-Directed Learning Readiness as a Characteristic of the Entrepreneur." In *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates, 161-173. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

Guglielmino, Paul J., Lucy M. Guglielmino, and Shuming Zhao. "A Preliminary Study of Self-Directed Learning Readiness in the People's Republic of China." In *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates, 127-137. Norman: Public Managers Center, College of Education, University of Oklahoma, 1996.

Hiemstra, Roger, and Ralph G. Brockett. "From Behaviorism to Humanism: Incorporating Self-Direction in Learning Concepts into the Instructional Design Process." In *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates, 59-80. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of University of Oklahoma, 1994.

Hoban Gary J., and Claudia J. Sersland. "Self-Directed Learning in Mathematics--An Impossibility at the Middle School?" In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 223-241. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Hrimech, Mohamed. "Some Self-Regulated Learning Strategies Utilized by Advanced Adult Learners." In *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates 87-97. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Jenks, Virginia O., William J. Haney, and Kathryn H. Clark. "Ways in Which the Cohort Model Influences Self-Directed Learning." In *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates, 229-240. Norman: Public Managers Center, College of Education, University of Oklahoma, 1996.

Kops, William J. "Self-Planned Learning of Managers in an Organizational Context." In *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates, 247-261. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993.

________. "Managers as Self-Directed Learners: Comparing Findings of Studies in Private and Public Sector Organizations." In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 71-86. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Long, Huey B. "Philosophical, Psychological, and Practical Justifications for Studying Self-Direction in Learning." In *Self-Directed Learning: Application and Research*, by Huey B. Long and Associates, 9-24. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1992.

________. "Self-Directed Learning: Smoke and Mirrors?" In *Expanding Horizons in Self-Directed Learning*, by Huey B. Long and Associates, 1-11. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Long, Huey B., and Scott S. Morris. "Self-Directed Learning in Business & Industry: A Review of the Literature, 1983-1993." In *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates, 367-380. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

________. "The Relationship between Self-Directed Learning Readiness and Academic Performance in a Nontraditional Higher Education Program." In *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates, 139-156. Norman: Public Managers Center, College of Education, University of Oklahoma, 1996.

Long, Huey B., and Stanley W. Smith. "Self-Directed Learning Readiness and Student Success." In *Current Developments in Self-Directed Learning*, by Huey B. Long and Associates, 193-202. Norman: Public Managers Center, College of Education, University of Oklahoma, 1996.

Long, Huey B., Stephen K. Agyekum, and Claire Stubblefield. "Origins of Self-Directed Learning Readiness." In *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates, 1-21. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

Long, Huey B., Terrence R. Redding, and Gordon Eisenman. "Development of Self-Directed Learning Readiness: A Longitudinal Study." In *Emerging Perspectives of Self-Directed Learning*, by Huey B. Long and Associates, 9-25. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993.

_________. "A Longitudinal Study: Social Behavior and SDLRS Scores." In *New Ideas about Self-Directed Learning*, by Huey B. Long and Associates, 39-57. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

_________. "Longitudinal Study of Self-Directed Learning: SDLRS Scores at the 5th, 8th, and 11th Grades." In *New Dimensions in Self-Directed Learning*, by Huey B. Long and Associates, 23-37. Norman: Public Managers Center, College of Education, University of Oklahoma, 1995.

McCune, Sandra L., and Lucy M. Guglielmino. "The Validity Generalization of Guglielmino's Self-Directed Learning Readiness Scale." In *Self-Directed Learning: Consensus and Conflict*, by Huey B. Long and Associates, 147-154. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1991.

McCune, Sandra L., Lucy M. Guglielmino, and Gonzalo Garcia, Jr. "Adult Self-Direction in Learning: A Meta-analytic Study of Research Using the Self-Directed Learning Readiness Scale." In *Advances in Research and Practice in Self-Directed Learning*, by Huey B. Long and Associates, 145-156. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1990.

Morris, Scott S. "Item Analysis of Guglielmino's Self-Directed Learning Readiness Scale: Revisiting the Issue of Internal Consistency." In *Expanding Horizons in Self-Directed Learning,* by Huey B. Long and Associates, 195-207. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Piskurich, George, M. "Evaluating Self-Directed Learning in a Business Environment." In *Emerging Perspectives of Self-Directed Learning,* by Huey B. Long and Associates, 263-281. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1993.

Portelli, Patricia. "Self-Directed Learning Effects in Voluntary Associations' Organizational Framework." In *Expanding Horizons in Self-Directed Learning,* by Huey B. Long and Associates, 255-267. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Rose, Amy D. "From Self-Culture to Self-Direction: An Historical Analysis of Self-Directed Learning." In *Expanding Horizons in Self-Directed Learning,* by Huey B. Long and Associates, 13-26. Norman: Public Managers Center, College of Education, University of Oklahoma, 1997.

Straka, Gerald A., Markus Kleinmann, and Markus Stokl. "Self-Organized Job Related Learning." In *New Ideas about Self-Directed Learning,* by Huey B. Long and Associates, 149-160. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

Weldon, Katherine C., and Mindy E. Denny. "Continuous Workplace Learning: An Assessment of Learner Perceptions." In *New Ideas about Self-Directed Learning,* by Huey B. Long and Associates, 187-200. Norman: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma, 1994.

Wojciechowski, Ingrid. "Self-Directed Learning: A Tool for Management to Eliminate the Annual Performance Appraisal." In *Current Developments in Self-Directed Learning,* by Huey B. Long and Associates, 37-49. Norman:

Public Managers Center, College of Education, University of Oklahoma, 1996.

Yearbook

"Statistics of the Ministry in Each Church of The Baptist Convention of Hong Kong in 1996." In *The Baptist Convention of Hong Kong Annual 1996* (in Chinese), 142-143. Hong Kong: The Baptist Convention of Hong Kong, 1997.

Dissertation Abstracts

Baxter, Lynn Z. "The Association of Self-Directed Learning Readiness, Learning Styles, Self-Paced Instruction, and Confidence to Perform on the Job." Ph.D. diss., University of North Texas, 1993. Abstract in *Dissertation Abstracts International* 54-08A: 2920, *Dissertation Abstracts Ondisc*, CD-ROM, February 1994.

Darmayanti, Tri. "Readiness for Self-Directed Learning and Achievement of the Students of Universitas Terbuka (The Indonesian Open Learning University)." M.A. thesis, University of Victoria, 1994. Abstract in *Dissertation Abstracts International* 33-04: 1061, *Dissertation Abstracts Ondisc*, CD-ROM, August 1995.

Dewane, Claudia M. "Self-Help Groups and Adult Learning." D.Ed. diss., Pennsylvania State University, 1993. Abstract in *Dissertation Abstracts International* 54-12A: 4331, *Dissertation Abstracts Ondisc*, CD-ROM, June 1994.

Diaz-Alemany, Daisy. "A Naturalistic Exploratory Inquiry into the Informal Learning Strategies of Human Resource Development Professionals." Ph.D. diss., University of Texas at Austin, 1993. Abstract in *Dissertation Abstracts International* 54-12A: 4342, *Dissertation Abstracts Ondisc*, CD-ROM, June 1994.

Jones, Carol J. "A Study of the Relationship of Self-Directed Learning Readiness to Observable Behavioral Characteristics in an Adult Basic Education Program."

Ed.D. diss., University of Georgia, 1989. Abstract in *Dissertation Abstracts International* 50-11A: 3446, *Dissertation Abstracts Ondisc*, CD-ROM, May 1990.

Jude-York, Deborah A. "Organizational Learning Climate, Self-Directed Learners, and Performance at Work." Ph.D. diss., The Fielding Institute, 1991. Abstract in *Dissertation Abstracts International* 53-07A: 2206, *Dissertation Abstracts Ondisc*, CD-ROM, January 1993.

Lo, Pao-Feng. "Understanding Learning in Organizations: A Case Study in Taiwan." Ph.D. diss., University of Wisconsin, 1996. Abstract in *Dissertation Abstracts International* 57-04A: 1440, *Dissertation Abstracts Ondisc*, CD-ROM, October 1996.

McDonald, Nancy C. "A Critical Thinking/Learning Model for Educating Adults." Ed.D. diss., Auburn University, 1993. Abstract in *Dissertation Abstracts International* 54-02A: 402, *Dissertation Abstracts Ondisc*, CD-ROM, August 1993.

Ogazon, Agueda G., "The Contribution of Self-Directed Learning Readiness to the Achievement of Junior Students at a Branch of the State of Florida University System." Ed.D. diss., Florida International University, 1995. Abstract in *Dissertation Abstracts International* 56-12A: 4676, *Dissertation Abstracts Ondisc*, CD-ROM, June 1996.

Ravid, Gad. "Self-Directed Learning as a Future Training Mode in Organizations." Ph.D. diss., University of Toronto, 1986. Abstract in *Dissertation Abstracts International* 47-06A: 1993. *Dissertation Abstracts Ondisc*, CD-ROM, December 1986.

Robishaw, Don L. "From Resistance to Persistance? An Alternative Self-Directed Readiness Training Program for Adult Literacy and Adult Basic Education Learners." Ed.D. diss., University of Massachusetts, 1996. Abstract in *Dissertation Abstracts International* 57-02A: 552, *Dissertation Abstracts Ondisc*, CD-ROM, August 1996.

Russell, Jan W. "Learning Preference for Structure, Self-Directed Learning Readiness, and Instructional Methods." Ph.D. diss., University of Missouri, 1988. Abstract in

Dissertation Abstracts International 49-07A: 1689, *Dissertation Abstracts Ondisc*, CD-ROM, January 1989.

Singh, Padma B. "The Relationship between Group Empowerment and Self-Directed Learning in Selected Small Groups in Michigan." Ph.D. diss., Michigan State University, 1993. Abstract in *Dissertation Abstracts International* 54-10A: 3656, *Dissertation Abstracts Ondisc*, CD-ROM, April 1994.

Wilson, Bonnie K. "Comparison of Two Teaching Strategies for Teaching Basic Nursing Skills to Baccalaureate Nursing Students." Ph.D. diss., University of Nebraska, 1992. Abstract in *Dissertation Abstracts International* 53-07A: 2233, *Dissertation Abstracts Ondisc*, CD-ROM, January 1993.

Wood, Joanne M. "An Exploration of Adult Perception of Deterrents to Participation and Self-Directed Learning Readiness." Ed.D. diss., University of Tennessee, 1994. Abstract in *Dissertation Abstracts International* 55-07A: 1800, *Dissertation Abstracts Ondisc*, CD-ROM, January 1995.

Wood, John A. "The Impact of Problem-Based Learning upon Beginning Teachers' Self-Directed Learning Orientation." M.Ed. thesis, University of New Brunswick, 1995. Abstract in *Dissertation Abstracts International* 34-02: 513, *Dissertation Abstracts Ondisc*, CD-ROM, April 1996.

Young, Lugenia D. "The Relationship of Race, Sex, and Locus of Control to Self-Directed Learning." Ph.D. diss., University of Georgia, 1985. Abstract in *Dissertation Abstracts International* 46-07A: 1886, *Dissertation Abstracts Ondisc*, CD-ROM, January 1986.

Dissertations

Durr, Richard E. "An Examination of Readiness for Self-Directed Learning and Selected Personnel Variables at a Large Midwestern Electronics Development and Manufacturing Corporation." Ed.D. diss., Florida Atlantic University, 1992.

Guglielmino, Lucy M. "Development of the Self-Directed Learning Readiness Scale." Ed.D. diss., University of Georgia, 1977.

Roberts, Donald G. "A Study of the Use of the Self-Directed Learning Readiness Scale as Related to Selected Organization Variables." Ed.D. diss., The George Washington University, 1986.

APPENDIX A

SUNDAY SCHOOL AVERAGE ATTENDANCE OF HONG KONG CHINESE BAPTIST CHURCHES IN 1996

Church	Sunday School Average Attendance per Week	
1. Kowloon City Baptist Church	1128	Portion A
2. Tai Po Baptist Church	1000	
3. Tsimshatsui Baptist Church	384	
4. Hong Kong Baptist Church	320	Portion B
5. City One Baptist Church	290	
6. Tsuen Wan Baptist Church	252	
7. Aberdeen Baptist Church	227	
8. Kwun Tong Swatow Baptist Church	210	
9. Kowloon City Swatow Baptist Church	200	
10. Castle Peak Baptist Church	178	
11. Shaukiwan Baptist Church	173	
12. Yuen Long Baptist Church	164	
13. Mongkok Baptist Church	142	
14. Wan Chai Baptist Church	136	
15. Fanling Baptist Church	135	
16. Oi Kwan Road Baptist Church	135	
17. Shamshuipo Baptist Church	128	
18. Hong Kong Swatow Baptist Church	125	Portion C
19. West Point Baptist Church	113	
20. Tai Kok Tsui Baptist Church	100	
21. Cha Kwo Ling Baptist Church	98	
22. Yau San Baptist Chapel	92	
23. Yan Tin Baptist Church	89	
24. Hung Hom Baptist Church	86	
25. Chai Wan Baptist Church	84	
26. North Point Baptist Church	84	
27. Choi Ping Baptist Church	80	
28. Hong Kong Grace Baptist Church	80	
29. New Hope Baptist Church	80	
30. Ngau Chi Wan Chuk Yuen Swatow Baptist Church	78	
31. Mongkok Swatow Baptist Church	70	
32. Sheung Wan Baptist Church	69	
33. Kwong Lam Baptist Church	63	
34. Castle Peak Road Swatow Baptist Church	62	
35. Cherith Baptist Chapel	60	
36. Causeway Bay Baptist Church	60	

Church	Sunday School Average Attendance per Week
37. Homantin Swatow Baptist Church	60
38. Immanuel Baptist Church	60
39. Shamshuipo Swatow Baptist Church	60
40. Quarry Bay Baptist Church	59
41. Christ Baptist Church	58
42. Tokwawan Baptist Church	56
43. Ngau Tau Kok Swatow Baptist Church	54
44. Hing Wah Baptist Church	53
45. Tsz Wan Shan Baptist Church	53
46. University Baptist Church	53
47. Kwai Chung Baptist Church	52
48. Zion Baptist Church	49
49. Cross Road Community Baptist Church	47
50. Apleichau Baptist Church	46
51. Cheung Chau Baptist Church	46
52. Ngau Tau Kok Baptist Church	46
53. Diamond Hill Baptist Church	43
54. Wan Chai Swatow Baptist Church	42
55. Sheung Shui Baptist Church	40
56. Tsimshatsui Mandarin Baptist Church	35
57. Kowloon Mandarin Baptist Church	30
58. Kennedy Town Baptist Church	27
59. Jordan Road Baptist Church	22
60. Sai Kung Baptist Church	21
61. Tin Lok Baptist Church	21
62. Shun Tin Baptist Church	20
63. Shatin Swatow Baptist Church	18
64. Shaukiwan Mandarin Baptist Church	8
65. Brotherly Love Swatow Baptist Church	0
66. Kwun Tong Baptist Church	0
67. Shaukiwan Swatow Baptist Church	0
68. Shatin Baptist Church	0
69. Victory Avenue Swatow Baptist Church	0
70. Hong Kong Filipino Baptist Church	/
71. Hong Kong International Baptist Church	/
72. Kowloon International Baptist Church	/
Total	7954

APPENDIX B

LETTER TO HONG KONG CHINESE BAPTIST CHURCHES ASKING ABOUT INFORMATION OF THEIR ADULT SUNDAY SCHOOLS

敬啓者：鄙人爲亞洲浸信會神學研究院之研究生，主修宗教教育，督導教授爲譚司提反博士。鄙人現正撰寫研究論文，內容乃關於香港浸信會成人主日學，研究結果可供教會作參考，以便教會發展成人主日學。現需要 貴教會於下列回條內之資料，特專函奉達，懇請 台端提供以下資料，於十日內以回郵信封寄回。有勞之處，不勝感激！

此致

主內

張劉文昭敬上
一九九七年七月三日

聯絡電話：23368225
地址：九龍秀竹園道 17 號
七樓 C 座

回條

教會名稱：____________________

a. 21-59 歲之成人主日學：
班數：________ 教師人數：________ 學員總數約：________

b. 60 歲或以上之成人主日學：
班數：________ 教師人數：________ 學員總數約：________

c. 可供聯絡之主日學負責同工或部長姓名：____________________

APPENDIX C

NUMBER OF ADULT SUNDAY SCHOOL TEACHERS OF HONG KONG CHINESE BAPTIST CHURCHES IN AUGUST 1996-JULY 1997

Church	No. of Adult Sunday School Teachers	
1. Kowloon City Baptist Church	42	Portion D
2. Tai Po Baptist Church	25	
4. Hong Kong Baptist Church	23	
13. Mongkok Baptist Church	20	
12. Yuen Long Baptist Church	17	
3. Tsimshatsui Baptist Church	16	
6. Tsuen Wan Baptist Church	14	
14. Wan Chai Baptist Church	14	
19. West Point Baptist Church	14	Portion E
11. Shaukiwan Baptist Church	11	
30. Ngau Chi Wan Chuk Yuen Swatow Baptist Church	11	
52. Ngau Tau Kok Baptist Church	11	
55. Sheung Shui Baptist Church	11	
25. Chai Wan Baptist Church	10	
32. Sheung Wan Baptist Church	10	
35. Cherith Baptist Chapel	10	
58. Kennedy Town Baptist Church	10	
5. City One Baptist Church	9	
8. Kwun Tong Swatow Baptist Church	9	
21. Cha Kwo Ling Baptist Church	9	
27. Choi Ping Baptist Church	9	
28. Hong Kong Grace Baptist Church	9	
36. Causeway Bay Baptist Church	9	
54. Wan Chai Swatow Baptist Church	9	
24. Hung Hom Baptist Church	8	
40. Quarry Bay Baptist Church	8	Portion F
46. University Baptist Church	8	
7. Aberdeen Baptist Church	7	
9. Kowloon City Swatow Baptist Church	7	
16. Oi Kwan Road Baptist Church	7	
17. Shamshuipo Baptist Church	7	
20. Tai Kok Tsui Baptist Church	7	
26. North Point Baptist Church	7	
37. Homantin Swatow Baptist Church	7	
45. Tsz Wan Shan Baptist Church	7	
29. New Hope Baptist Church	6	
38. Immanuel Baptist Church	6	

Church	No. of Adult Sunday School Teachers
42. Tokwawan Baptist Church	6
44. Hing Wah Baptist Church	6
50. Apleichau Baptist Church	6
53. Diamond Hill Baptist Church	6
60. Sai Kung Baptist Church	6
22. Yau San Baptist Chapel	5
23. Yan Tin Baptist Church	5
41. Christ Baptist Church	5
18. Hong Kong Swatow Baptist Church	4
33. Kwong Lam Baptist Church	4
10. Castle Peak Baptist Church	3
51. Cheung Chau Baptist Church	3
63. Shatin Swatow Baptist Church	3
15. Fanling Baptist Church	2
34. Castle Peak Road Swatow Baptist Church	2
39. Shamshuipo Swatow Baptist Church	2
43. Ngau Tau Kok Swatow Baptist Church	2
48. Zion Baptist Church	2
56. Tsimshatsui Mandarin Baptist Church	2
62. Shun Tin Baptist Church	2
64. Shaukiwan Mandarin Baptist Church	2
31. Mongkok Swatow Baptist Church	1
47. Kwai Chung Baptist Church	1
49. Cross Road Community Baptist Church	1
57. Kowloon Mandarin Baptist Church	1
59. Jordan Road Baptist Church	1
61. Tin Lok Baptist Church	1
65. Brotherly Love Swatow Baptist Church	0
66. Kwun Tong Baptist Church	0
67. Shaukiwan Swatow Baptist Church	0
68. Shatin Baptist Church	0
69. Victory Avenue Swatow Baptist Church	0
70. Hong Kong Filipino Baptist Church	/
71. Hong Kong International Baptist Church	/
72. Kowloon International Baptist Church	/
Total	508

APPENDIX D

SELF-DIRECTED LEARNING READINESS SCALE FORM-A ORIGINAL ENGLISH VERSION

SDLRS-A

Name ______________________ Sex ________ Birthdate ______________

Date of Testing ________________ Location of Testing ______________________

QUESTIONNAIRE

INSTRUCTIONS: This is a questionnaire designed to gather data on learning preferences and attitudes towards learning. After reading each item, please indicate the degree to which you feel that statement is true of you. Please read each choice carefully and circle the number of the response which best expresses your feeling.

There is no time limit for the questionnaire. Try not to spend too much time on any one item, however. Your first reaction to the question will usually be the most accurate.

SAMPLE

ITEMS:	RESPONSES Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way
1. I'm looking forward to learning as long as I'm living.	1	2	3	4	5
2. I know what I want to learn.	1	2	3	4	5
3. When I see something that I don't understand, I stay away from it.	1	2	3	4	5
4. If there is something I want to learn, I can figure out a way to learn it.	1	2	3	4	5
5. I love to learn.	1	2	3	4	5
6. It takes me a while to get started on new projects.	1	2	3	4	5
7. In a classroom, I expect the teacher to tell all class members exactly what to do at all times.	1	2	3	4	5
8. I believe that thinking about who you are, where you are, and where you are going should be a major part of every person's education.	1	2	3	4	5
9. I don't work very well on my own.	1	2	3	4	5

	Almost never true of me; I hardly ever feel this way	Not often true of me; I feel this way less than half the time	Sometimes true of me; I feel this way about half the time	Usually true of me; I feel this way more than half the time	Almost always true of me; there are very few times when I don't feel this way
10. If I discover a need for information that I don't have, I know where to go to get it.	1	2	3	4	5
11. I can learn things on my own better than most people.	1	2	3	4	5
12. Even if I have a great idea, I can't seem to develop a plan for making it work.	1	2	3	4	5
13. In a learning experience, I prefer to take part in deciding what will be learned and how.	1	2	3	4	5
14. Difficult study doesn't bother me if I'm interested in something.	1	2	3	4	5
15. No one but me is truly responsible for what I learn.	1	2	3	4	5
16. I can tell whether I'm learning something well or not.	1	2	3	4	5
17. There are so many things I want to learn that I wish that there were more hours in a day.	1	2	3	4	5
18. If there is something I have decided to learn, I can find time for it, no matter how busy I am.	1	2	3	4	5
19. Understanding what I read is a problem for me.	1	2	3	4	5
20. If I don't learn, it's not my fault.	1	2	3	4	5
21. I know when I need to learn more about something.	1	2	3	4	5
22. If I can understand something well enough to get a good grade on a test, it doesn't bother me if I still have questions about it.	1	2	3	4	5
23. I think libraries are boring places.	1	2	3	4	5
24. The people I admire most are always learning new things.	1	2	3	4	5

	Almost never true of me; I hardly ever feel this way	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time	Usualy true of me; I feel this way more than half the time	Almost always true of me; there are very few times when I don't feel this way
25 I can think of many different ways to learn about a new topic.	1	2	3	4	5
26 I try to relate what I am learning to my long-term goals.	1	2	3	4	5
27 I am capable of learning for myself almost anything I might need to know.	1	2	3	4	5
28 I really enjoy tracking down the answer to a question.	1	2	3	4	5
29. I don't like dealing with questions where there is not one right answer.	1	2	3	4	5
30. I have a lot of curiosity about things.	1	2	3	4	5
31. I'll be glad when I'm finished learning.	1	2	3	4	5
32. I'm not as interested in learning as some other people seem to be.	1	2	3	4	5
33. I don't have any problem with basic study skills.	1	2	3	4	5
34. I like to try new things, even if I'm not sure how they will turn out.	1	2	3	4	5
35. I don't like it when people who really know what they're doing point out mistakes that I am making.	1	2	3	4	5
36. I'm good at thinking of unusual ways to do things.	1	2	3	4	5
37. I like to think about the future.	1	2	3	4	5
38. I'm better than most people are at trying to find out the things I need to know.	1	2	3	4	5
39. I think of problems as challenges, not stopsigns.	1	2	3	4	5
40. I can make myself do what I think I should.	1	2	3	4	5

	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time	Usually true of me; I feel this way more than half the time	Almost always true of me; there are very few times when I don't feel this way.
41. I'm happy with the way I investigate problems.	1	2	3	4	5
42. I become a leader in group learning situations.	1	2	3	4	5
43. I enjoy discussing ideas.	1	2	3	4	5
44. I don't like challenging learning situations.	1	2	3	4	5
45. I have a strong desire to learn new things.	1	2	3	4	5
46. The more I learn, the more exciting the world becomes.	1	2	3	4	5
47. Learning is fun.	1	2	3	4	5
48. It's better to stick with the learning methods that we know will work instead of always trying new ones.	1	2	3	4	5
49. I want to learn more so that I can keep growing as a person.	1	2	3	4	5
50. I am responsible for my learning — no one else is.	1	2	3	4	5
51. Learning how to learn is important to me.	1	2	3	4	5
52. I will never be too old to learn new things.	1	2	3	4	5
53. Constant learning is a bore.	1	2	3	4	5
54. Learning is a tool for life.	1	2	3	4	5
55. I learn several new things on my own each year.	1	2	3	4	5
56. Learning doesn't make any difference in my life.	1	2	3	4	5
57. I am an effective learner in the classroom and on my own.	1	2	3	4	5
58. Learners are leaders.	1	2	3	4	5

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APPENDIX E

SELF-DIRECTED LEARNING READINESS SCALE FORM-A
REVISED ENGLISH VERSION
IN HONG KONG IN 1983

INSTRUCTIONS: This is a questionnaire designed to gather data on learning preferences and attitudes towards learning. After reading each item, please indicate the degree to which you feel that statement applies to you. Please read each choice carefully and circle the number of the response which best expresses your feeling.

There is no time limit for the questionnaire. However, try not to spend too much time on any one item. Your first reaction to the question will usually be the most accurate.

ITEMS:	RESPONSES Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
1 I'm looking forward to learning as long as I'm living.	A	B	C	D	E
2 I know what I want to learn.	A	B	C	D	E
3 I stay away from things I don't understand.	A	B	C	D	E
4 If there is something I want to learn, I can find a way to learn it.	A	B	C	D	E
5 I love to learn.	A	B	C	D	E
6 It takes me a little time before I get started on new project.	A	B	C	D	E
7 When I am in a classroom situation, I expect the instructor to tell all class members exactly what to do at all times.	A	B	C	D	E
8 A major part of every person's education is thinking about who you are, where you are, and where you are going.	A	B	C	D	E
9 I don't work very well on my own.	A	B	C	D	E

ITEMS:	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
10 If I discover a need for information that I don't have, I know where to go to get it.	A	B	C	D	E
11 I can learn things on my own better than most people.	A	B	C	D	E
12 When I have a great idea, I find it difficult to develop a plan for making it work.	A	B	C	D	E
13 I prefer to take part in deciding what will be learned and how.	A	B	C	D	E
14 Difficult study doesn't bother me if I'm interested in something.	A	B	C	D	E
15 I am the only one truly responsible for what I learn.	A	B	C	D	E
16 I can tell whether I'm learning something well or not.	A	B	C	D	E
17 There are so many things I want to learn that I wish that there were more hours in a day.	A	B	C	D	E
18 If there is something I have decided to learn, I can find time for it, no matter how busy I am.	A	B	C	D	E
19 I have a problem understanding what I read.	A	B	C	D	E
20 It's not my fault when I don't learn.	A	B	C	D	E
21 I know when I need to learn more about something.	A	B	C	D	E
22 It doesn't bother me if I still have questions about a subject if I can understand it well enough to get a good grade on a test.	A	B	C	D	E

ITEMS.	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
23 I think libraries are boring places.	A	B	C	D	E
24 The people I most admire are always learning new things.	A	B	C	D	E
25 I can think of many ways to learn about a new topic.	A	B	C	D	E
26 I try to relate what I am learning to my long-term goals.	A	B	C	D	E
27 I am capable of finding a way to learn almost anything I might need to know.	A	B	C	D	E
28 I really enjoy tracking down the answer to a question.	A	B	C	D	E
29 I don't like questions where there is not one right answer.	A	B	C	D	E
30 I have a lot of curiosity about things.	A	B	C	D	E
31 I'll be glad when I have finished with learning.	A	B	C	D	E
32 I'm not as interested in learning as some other people seem to be.	A	B	C	D	E
33 I don't have any problem with basic study skills.	A	B	C	D	E
34 I like to try new things, even if I'm not sure how they will turn out.	A	B	C	D	E
35 I don't like people pointing out my mistakes even though they have expert knowledge.	A	B	C	D	E

ITEMS:	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
36 I'm good at thinking of unusual ways to do things.	A	B	C	D	E
37 I like to think about the future.	A	B	C	D	E
38 I'm better than most people at trying to find out the things I need to know.	A	B	C	D	E
39 I think of problems as challenges, not barriers.	A	B	C	D	E
40 When I know what I should do I can make myself do it.	A	B	C	D	E
41 I'm happy with the way I investigate problems.	A	B	C	D	E
42 I become a leader in group learning situations.	A	B	C	D	E
43 I enjoy discussing ideas.	A	B	C	D	E
44 I don't like learning situations which are challenging.	A	B	C	D	E
45 I have a strong desire to learn new things.	A	B	C	D	E
46 The world becomes more exciting the more I learn.	A	B	C	D	E
47 Learning is fun.	A	B	C	D	E
48 It's better to stick with the learning methods that we know will work instead of always trying new ones.	A	B	C	D	E
49 I want to learn more so that I can keep growing as a person.	A	B	C	D	E

ITEMS:	Almost never true of me; I hardly ever feel this way.	Not often true of me; I feel this way less than half the time.	Sometimes true of me; I feel this way about half the time.	Usually true of me; I feel this way more than half the time.	Almost always true of me; there are very few times when I don't feel this way.
50 I am the only one responsible for my learning.	A	B	C	D	E
51 It is important to me to "learn how to learn."	A	B	C	D	E
52 I will never be too old to learn new things.	A	B	C	D	E
53 Constant learning is a bore.	A	B	C	D	E
54 Learning is useful throughout life.	A	B	C	D	E
55 I learn several new things on my own each year.	A	B	C	D	E
56 Learning doesn't make any difference in my life.	A	B	C	D	E
57 I am an effective learner both in a classroom situation and on my own.	A	B	C	D	E
58 Leaders are persons who continue to learn.	A	B	C	D	E

APPENDIX F

SELF-DIRECTED LEARNING READINESS SCALE FORM-A CHINESE VERSION IN 1983

問卷

答卷須知：本問卷旨在收集有關員工對學習的偏好和態度兩方面的資料。請先閱讀每一個項目，然後填寫該項目對你的適用程度。請細心閱讀每一答案，然後圈出一個最能表達你心意的答案。

本問卷並不限時作答，但請盡量不要花費太多時間思索任何一個項目。你對問題的第一個反應通常是最準確的。

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項目	反應 對我來說幾乎全不適用：我很少有此種想法。	對我來說不常適用：我只有小半時間有此想法。	對我來說有時適用：我有一半時間有此想法。	對我來說通常適用：我有大半時間有此想法。	對我來說幾乎隨時適用：我很少沒有此種想法。
1 我樂意活到老，學到老。	A	B	C	D	E
2 我知道自己想學習甚麼。	A	B	C	D	E
3 我逃避自己不明白的東西。	A	B	C	D	E
4 假如我想學習某些東西，我都能設法學得到。	A	B	C	D	E
5 我喜愛學習。	A	B	C	D	E
6 我要花費少許時間才可以開始實行新計劃。	A	B	C	D	E
7 當我在課堂學習時，我期望導師時刻不停地指導學員正確地去做。	A	B	C	D	E
8 對我個人來說，教育的大部份意義在思索自我的價值和何去何從。	A	B	C	D	E
9 我不擅於獨立工作。	A	B	C	D	E
10 假如我發覺我必須收集一些我所缺乏的資料，我知道應該從何處蒐集。	A	B	C	D	E
11 我自修的成績差於大多數人。	A	B	C	D	E
12 當我有一個好主意時，我覺得很難作出計劃去將它實現。	A	B	C	D	E
13 我比較喜歡參與決定學習的項目和方法。	A	B	C	D	E
14 假如我對某些事物感興趣，即使學習過程困難，我也不介意。	A	B	C	D	E

項目	反應				
	對我來說幾乎全不適用；我很少有此種想法。	對我來說不常適用；我只有小半時間有此想法。	對我來說有時適用；我有一半時間有此想法。	對我來說通常適用；我有大半時間有此想法。	對我來說幾乎隨時適用；我很少沒有此種想法。
15 只有我本人應對自己的學習負責。	A	B	C	D	E
16 我知道自己的學習成績是否良好。	A	B	C	D	E
17 我想學習的東西太多，眞希望每日有更多時間可用。	A	B	C	D	E
18 假如我決定要學習某些東西，無論怎麼忙碌，我也能夠抽空去學習。	A	B	C	D	E
19 我對我所閱讀的東西感到難以瞭解。	A	B	C	D	E
20 我學習不成並不是我的過錯。	A	B	C	D	E
21 我知道應在甚麼時候對某樣事物學習多一些。	A	B	C	D	E
22 即使我對一個題目仍有疑問，只要我對它的認識足可在測驗中取得良好的成績，我便不會介意。	A	B	C	D	E
23 我覺得圖書館是使人發悶的地方。	A	B	C	D	E
24 我最讚賞的人全都好學不倦。	A	B	C	D	E
25 我能想出很多學習新科目的方法。	A	B	C	D	E
26 我設法使目前所學習的知識和我的長遠目標互相配合。	A	B	C	D	E
27 無論我需要知道甚麼，我幾乎都有辦法學習得到。	A	B	C	D	E
28 我覺得追本尋源 、解答疑問是一件樂事。	A	B	C	D	E
29 我不喜歡沒有正確答案的問題。	A	B	C	D	E

項目	反應 對我來說幾乎全不適用：我很少有此種想法。	對我來說不常適用：我只有小半時間有此想法。	對我來說有時適用：我有一半時間有此想法。	對我來說通常適用：我有大半時間有此想法。	對我來說幾乎隨時適用：我很少沒有此種想法。
30 我對事物有極大的好奇心。	A	B	C	D	E
31 當我完成學習時，我將會感到高興。	A	B	C	D	E
32 我對學習的興趣不似別人那麼大。	A	B	C	D	E
33 基本學習技巧對我並不困難。	A	B	C	D	E
34 即使我不能肯定結果會如何，我亦喜歡嘗試新事物。	A	B	C	D	E
35 即使別人有專門學識，我亦不喜歡他們指出我的錯誤。	A	B	C	D	E
36 我擅於思考特殊的辦事方法。	A	B	C	D	E
37 我喜歡展望未來。	A	B	C	D	E
38 我在搜集所需資料方面的能力，勝於大多數人。	A	B	C	D	E
39 我將困難視作挑戰，而不是障礙。	A	B	C	D	E
40 當我知道應該做甚麼時，我會令自己照做。	A	B	C	D	E
41 我對自己研究困難的方式感到滿意。	A	B	C	D	E
42 進行小組學習時，我成爲小組領導人。	A	B	C	D	E
43 我喜歡研討意見。	A	B	C	D	E
44 我不喜歡具有挑戰性的學習方式。	A	B	C	D	E
45 我非常渴望學習新事物。	A	B	C	D	E

項目	反應				
	對我來說幾乎全不適用：我很少有此種想法。	對我來說不常適用：我只有小半時間有此想法。	對我來說有時適用：我有一半時間有此想法。	對我來說通常適用：我有大半時間有此想法。	對我來說幾乎隨時適用：我很少沒有此種想法。
46 我學到的事物愈多，愈覺得這個世界充滿刺激性。	A	B	C	D	E
47 學習是一件樂事。	A	B	C	D	E
48 沿用已知有效的學習方法，勝於嘗試新法。	A	B	C	D	E
49 我想學習更多東西，使自己可以不斷成長。	A	B	C	D	E
50 只有我本人應對自己的學習負責。	A	B	C	D	E
51 我覺得「學習如何學習」是十分重要的事。	A	B	C	D	E
52 我年紀再大也可以學習新事物。	A	B	C	D	E
53 不斷學習使人發悶。	A	B	C	D	E
54 學習使人一生使用。	A	B	C	D	E
55 我每年都靠自己學習幾種新事物。	A	B	C	D	E
56 學習對我的生活毫無影響。	A	B	C	D	E
57 無論在課堂上課或者自修，我都能有效地學習。	A	B	C	D	E
58 領袖人物都是好學不倦的人。	A	B	C	D	E

APPENDIX G

SELF-DIRECTED LEARNING READINESS SCALE FORM-A REVISED CHINESE VERSION IN 1997

21歲或以上

學員問卷

填答須知：本問卷旨在收集學員對學習的偏好和態度兩方面的資料。請閱讀每一個項目，然後閱讀每個答案，之後請圈出一個最能表達你心意的答案。請回答全部項目。

本問卷並不限時作答，但請盡量不要花太多時間思索任何一個項目。你對問題的第一個反應通常是最準確的。

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12-20歲

學員問卷

填答須知：本問卷旨在收集學員對學習的偏好和態度兩方面的資料。請閱讀每一個項目，然後閱讀每個答案，之後請圈出一個最能表達你心意的答案。請回答全部項目。

本問卷並不限時作答，但請盡量不要花太多時間思索任何一個項目。你對問題的第一個反應通常是最準確的。

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項目	對我來說幾乎全不適用；我很少有此種想法。	對我來說不常適用；我只有小半時間有此想法	對我來說有時適用；我有一半時間有此想法。	對我來說通常適用；我有大半時間有此想法。	對我來說幾乎隨時適用；我常常有此種想法。
1 我樂意活到老，學到老。	A	B	C	D	E
2 我知道自己想學習什麼。	A	B	C	D	E
3 我逃避自己不明白的東西。	A	B	C	D	E
4 假如我想學習某些東西，我都能設法去學。	A	B	C	D	E
5 我喜愛學習。	A	B	C	D	E
6 我要花費少許時間才可以開始實行新計劃。	A	B	C	D	E
7 當我在課堂學習時，我期望教師時常確切地告訴全體學員要做什麼。	A	B	C	D	E
8 我認爲每個人所受教育的一個主要成份應該是思索「我是誰，我身處何種境況、和我的人生方向爲何。」	A	B	C	D	E
9 我不擅於獨立工作。	A	B	C	D	E
10 假如我發覺需要一些我所缺乏的資料，我知道從何處搜集。	A	B	C	D	E
11 我比大多數人更能獨立地學習。	A	B	C	D	E
12 當我有一個好主意時，我覺得很難訂出計劃去將它實現。	A	B	C	D	E
13 我比較喜歡參予決定學習的項目和方法。	A	B	C	D	E

項目	對我來說幾乎全不適用：我很少有此種想法。	對我來說不常適用：我只有小半時間有此想法	對我來說有時適用：我有一半時間有此想法。	對我來說通常適用：我有大半時間有此想法。	對我來說幾乎隨時適用：我常常有此種想法。
14 假如我對某些事物感興趣，即使學習過程困難，我也不介意。	A	B	C	D	E
15 只有我本人應對自己所學的負責。	A	B	C	D	E
16 我知道自己的學習成效是否良好。	A	B	C	D	E
17 我想學習的東西太多，眞希望每日有更多時間可用。	A	B	C	D	E
18 假如我決定要學習某些東西，無論怎樣忙碌，我也能夠抽空去學習。	A	B	C	D	E
19 我對我所閱讀的東西感到難以瞭解。	A	B	C	D	E
20 我學習不成並不是我的過錯。	A	B	C	D	E
21 我知道什麼時候需要多些學習某樣事物。	A	B	C	D	E
22 即使我對一個題目仍有疑問，只要我對它的認識足可在測驗中取得良好的成績，我便不會介意。	A	B	C	D	E
23 我覺得圖書館是使人發悶的地方。	A	B	C	D	E
24 我最讚賞的人全都好學不倦。	A	B	C	D	E
25 我能想出很多方法去學習一個新課題。	A	B	C	D	E
26 我設法使目前所學習的知識和我的長遠目標互相配合。	A	B	C	D	E

項目	對我來說幾乎全不適用：我很少有此種想法。	對我來說不常適用：我只有小半時間有此想法	對我來說有時適用：我有一半時間有此想法。	對我來說通常適用：我有大半時間有此想法。	對我來說幾乎隨時適用：我常常有此種想法。
27 幾乎任何我可能需要知道的，我都有辦法學習。	A	B	C	D	E
28 我覺得追本尋源，解答疑問是一件樂事。	A	B	C	D	E
29 我不喜歡沒有正確答案的問題。	A	B	C	D	E
30 我對事物有極大的好奇心。	A	B	C	D	E
31 當我不用再學習時，我會感到高興。	A	B	C	D	E
32 我對學習的興趣不似別人那麼大。	A	B	C	D	E
33 我在基本學習技巧上沒有困難。	A	B	C	D	E
34 即使我不能肯定結果會如何，我亦喜歡嘗試新事物。	A	B	C	D	E
35 即使別人有專門學識，我亦不喜歡他們指出我的錯誤。	A	B	C	D	E
36 我擅於思考特殊的辦事方法。	A	B	C	D	E
37 我喜歡展望未來。	A	B	C	D	E
38 我比大多數人更能找出我所需要知道的東西。	A	B	C	D	E
39 我將困難視作挑戰，而不是障礙。	A	B	C	D	E
40 當我知道應該做什麼時，我會令自己照做。	A	B	C	D	E

項目	對我來說幾乎全不適用；我很少有此種想法。	對我來說不常適用；我只有小半時間有此想法	對我來說有時適用；我有一半時間有此想法。	對我來說通常適用；我有大半時間有此想法。	對我來說幾乎隨時適用；我常常有此種想法。
41 我滿意自己探討難題的方式。	A	B	C	D	E
42 進行小組學習時，我成爲小組領導人。	A	B	C	D	E
43 我喜歡討論意見。	A	B	C	D	E
44 我不喜歡具有挑戰性的學習處境。	A	B	C	D	E
45 我非常渴望學習新事物。	A	B	C	D	E
46 我學到的事物愈多，愈覺得這個世界充滿刺激。	A	B	C	D	E
47 學習是一件樂事。	A	B	C	D	E
48 沿用已知有效的學習方法，勝於時常嘗試新方法。	A	B	C	D	E
49 我想學習更多東西，使自己可以不斷成長。	A	B	C	D	E
50 只有我本人應對自己的學習負責。	A	B	C	D	E
51 我覺得「學習如何學習」是十分重要的。	A	B	C	D	E
52 我年紀再大也可以學習新事物。	A	B	C	D	E
53 不斷學習使人發問。	A	B	C	D	E
54 學習使人一生受用。	A	B	C	D	E

項目	對我來說幾乎全不適用；我很少有此種想法。	對我來說不常適用；我只有小半時間有此想法	對我來說有時適用；我有一半時間有此想法。	對我來說通常適用；我有大半時間有此想法。	對我來說幾乎隨時適用；我常常有此種想法。
55 我每年都靠自己學習幾種新事物。	A	B	C	D	E
56 學習對我的生活毫無影響。	A	B	C	D	E
57 無論自修或者在課堂上課，我都能有效地學習。	A	B	C	D	E
58 領袖人物都是好學不倦的人。	A	B	C	D	E

以下是個人資料，請「✓」適當答案。所有答案都會保密。

59 性別： □男 □女

60 年齡： □12-15 □16-20 □21-29 □30-39 □40-49 □50-59 □60或以上

61 是否基督徒： □是 □否

若是，信主年數：________________

62 教育程度： □小學 □中學 □專上程度 □大學 □研究院

若你是21歲或以上，請回答63-64題：

63 職業：____________________________

64 在你的職業中，你的職位：________________________

(問卷完，謝謝填答！)

APPENDIX H

QUESTIONNAIRE FOR TEACHER'S RATING OF ADULT LEARNERS' SELF-DIRECTED LEARNING READINESS

教師問卷

填答須知：本問卷旨在收集教師對學員們的了解，特別是在學習的偏好和態度兩方面的資料。請閱讀每一個項目，然後閱讀每個答案，之後請圈出一個最能表達你意見的答案。請回答全部項目。

本問卷並不限時作答，但請盡量不要花太多時間思索任何一個項目。你對問題的第一個反應通常是最準確的。

© Lucy M. Guglielmino, 1995

項目	對學員們來說幾乎全不適用	對學員們來說不常適用。	對學員們來說有時適用。	對學員們來說通常適用。	對學員們來說幾乎隨時適用
1 學員們樂意活到老、學到老。	A	B	C	D	E
2 學員們知道自己想學習什麼。	A	B	C	D	E
3 學員們逃避自己不明白的東西。	A	B	C	D	E
4 假如學員們想學習某些東西，他們都能設法去學。	A	B	C	D	E
5 學員們喜愛學習。	A	B	C	D	E
6 學員們要花費少許時間才可以開始實行新計劃。	A	B	C	D	E
7 當學員們在課堂學習時，他們期望教師時常確切地告訴全體學員要做什麼。	A	B	C	D	E
8 學員們認爲每個人所受教育的一個主要成份應該是思索「我是誰、我身處何種境況、和我的人生方向爲何。」	A	B	C	D	E
9 學員們不擅於獨立工作。	A	B	C	D	E
10 假如學員們發覺需要一些自己所缺乏的資料，他們知道從何處搜集。	A	B	C	D	E
11 學員們比大多數人更能獨立地學習。	A	B	C	D	E
12 當學員們有一個好主意時，他們覺得很難訂出計劃去將它實現。	A	B	C	D	E
13 學員們比較喜歡參予決定學習的項目和方法。	A	B	C	D	E

項目	對學員們來說幾乎全不適用	對學員們來說不常適用。	對學員們來說有時適用。	對學員們來說通常適用。	對學員們來說幾乎隨時適用
14 假如學員們對某些事物感興趣，即使學習過程困難，他們也不介意。	A	B	C	D	E
15 學員們認爲只有學員本人應對自己所學的負責。	A	B	C	D	E
16 學員們知道自己的學習成效是否良好。	A	B	C	D	E
17 學員們想學習的東西大多，真希望每日有更多時間可用。	A	B	C	D	E
18 假如學員們決定要學習某些東西，無論怎樣忙碌，他們也能夠抽空去學習。	A	B	C	D	E
19 學員們對自己所閱讀的東西感到難以瞭解。	A	B	C	D	E
20 學員們認爲學習不成並不是自己的過錯。	A	B	C	D	E
21 學員們知道什麼時候需要多些學習某樣事物。	A	B	C	D	E
22 即使學員們對一個題目仍有疑問，只要他們對它的認識足可在測驗中取得良好的成績，他們便不會介意。	A	B	C	D	E
23 學員們覺得圖書館是使人發悶的地方。	A	B	C	D	E
24 學員們最讚賞的人全都好學不倦。	A	B	C	D	E
25 學員們能想出很多方法去學習一個新課題。	A	B	C	D	E
26 學員們設法使目前所學習的知識和自己的長遠目標互相配合。	A	B	C	D	E

項目	對學員們來說幾乎全不適用	對學員們來說不常適用。	對學員們來說有時適用。	對學員們來說通常適用。	對學員們來說幾乎隨時適用
27 學員們對幾乎任何自己可能需要知道的，都有辦法學習。	A	B	C	D	E
28 學員們覺得追本尋源、解答疑問是一件樂事。	A	B	C	D	E
29 學員們不喜歡沒有正確答案的問題。	A	B	C	D	E
30 學員們對事物有極大的好奇心。	A	B	C	D	E
31 當學員們不用再學習時，他們會感到高興。	A	B	C	D	E
32 學員們對學習的興趣不似別人那麼大。	A	B	C	D	E
33 學員們在基本學習技巧上沒有困難。	A	B	C	D	E
34 即使學員們不能肯定結果會如何，他們亦喜歡嘗試新事物。	A	B	C	D	E
35 即使別人有專門學識，學員們亦不喜歡別人指出自己的錯誤。	A	B	C	D	E
36 學員們擅於思考特殊的辦事方法。	A	B	C	D	E
37 學員們喜歡展望未來。	A	B	C	D	E
38 學員們比大多數人更能找出自己所需要知道的東西。	A	B	C	D	E
39 學員們將困難視作挑戰，而不是障礙。	A	B	C	D	E
40 當學員們知道應該做什麼時，他們會令自己照做。	A	B	C	D	E

項目	對學員們來說幾乎全不適用	對學員們來說不常適用。	對學員們來說有時適用。	對學員們來說通常適用。	對學員們來說幾乎隨時適用
41 學員們滿意自己探討難題的方式。	A	B	C	D	E
42 進行小組學習時，學員成爲小組領導人。	A	B	C	D	E
43 學員們喜歡討論意見。	A	B	C	D	E
44 學員們不喜歡具有挑戰性的學習處境。	A	B	C	D	E
45 學員們非常渴望學習新事物。	A	B	C	D	E
46 學員們學到的事物愈多，愈覺得這個世界充滿刺激。	A	B	C	D	E
47 學員們覺得學習是一件樂事。	A	B	C	D	E
48 學員們認爲沿用已知有效的學習方法，勝於時常嘗試新方法。	A	B	C	D	E
49 學員們想學習更多東西，使自己可以不斷成長。	A	B	C	D	E
50 學員們認爲只有學員本人應對自己的學習負責。	A	B	C	D	E
51 學員們覺得「學習如何學習」是十分重要的。	A	B	C	D	E
52 學員們覺得年紀再大也可以學習新事物。	A	B	C	D	E
53 學員們覺得不斷學習使人發悶。	A	B	C	D	E
54 學員們認爲學習使人一生受用。	A	B	C	D	E

項目	對學員們來說幾乎全不適用	對學員們來說不常適用。	對學員們來說有時適用。	對學員們來說通常適用。	對學員們來說幾乎隨時適用
55 學員們每年都靠自己學習幾種新事物。	A	B	C	D	E
56 學習對學員們的生活毫無影響。	A	B	C	D	E
57 無論自修或者在課堂上課，學員們都能有效地學習。	A	B	C	D	E
58 學員們認爲領袖人物都是好學不倦的人。	A	B	C	D	E

以下是個人資料，請「✓」適當答案。所有答案都會保密。

59 曾教成人主日學多久？ ____________

60 有否接受成人主日學的師資訓練？ □有 □否

若有接受其他種類的師資訓練，請列出：____________________________

61 是否認識諾爾斯(Malcolm Knowles)的成人教育理論？ □是 □否

62 請列出除諾爾斯外的一些成人教育學者的名字：____________________________

(問卷完，謝謝塡答！)

APPENDIX I

LETTER FROM EXECUTIVE DIRECTOR OF HONG KONG BAPTIST CONVENTION AND LETTER FROM SUPERVISOR OF THE RESEARCHER

香港浸信會聯會
The Baptist Convention of Hong Kong

會長：陳樹安博士
President : Dr. Cecil Chan Shu On
總幹事：朱活平牧師
Executive Director : Rev. Dr. Chu Wood-ping

香港九龍窩打老道73號二樓
1/F, 73 Waterloo Road, Kowloon, Hong Kong.
電話Tel : 2715 6527 傳真Fax : 2761 3087

敬啟者：劉文昭姊妹現就讀於亞洲浸信會神學研究院神學博士課程，其博士論文之題目與香港華人教會有關，故姊妹欲拜訪 貴教會，並取得 台端之寶貴資料及意見作為撰寫論文之用，敬希延見，無任感禱。

此致

各浸信教會主任牧師

香港浸信會聯會
總幹事
朱活平

主曆一九九七年七月八日

香港浸會2000 總目標：堂會達200間 會友達100 000人 經訓：同心合意 興旺福音 腓1:5

ASIA BAPTIST GRADUATE THEOLOGICAL SEMINARY
1, HOMANTIN HILL ROAD, KOWLOON, HONG KONG
TEL: (852) 27159511,   FAX: (852) 27610868   E-MAIL-stevetam@spider.net.hk
Dr. Stephen Tam, Ph.D.   Hong Kong Branch Director

敬啟者：張劉文昭姊妹現就讀於本院神學博士課程，主修宗教教育。姊妹現正撰寫研究論文，內容與香港浸信會之宗教教育有關，研究成果可供教會作參考，以便教會發展宗教教育。茲誠邀　貴教會提供所需之研究資料，懇請　台端協助。有勞之處，不勝感激！

此致

各浸信教會主任牧師

亞洲浸信會神學研究院
香港區主任
譚司提反博士

主曆一九九七年七月廿四日

APPENDIX J

LETTER TO SUNDAY SCHOOL DIRECTORS OF CHURCHES DISTRIBUTING THE LEARNER QUESTIONNAIRES AND THE TEACHER QUESTIONNAIRES

敬愛的

承蒙　閣下俯允協助鄙人之研究工作，不勝感激。鄙人之研究乃關於香港浸信會主日學中的成年人(21 歲或以上)對學習之偏好和態度，並與青少年(12-20 歲)作比較。研究成果可供教會作參考，以便教會發展宗教教育。

謹奉上：

1. 成年(21 歲或以上)「學員問卷」　　份
2. 青少年(12-20 歲)「學員問卷」　　份
3. 致主日學教師之信　　份
4.「教師問卷」　　份

勞煩　閣下把「學員問卷」按照上述份數分別交予成年級和青少年級主日學教師，請他們派給所教的學員。若一班中兼有青少年(12-20 歲)和成年(21 歲或以上)兩組年齡的學員，請告訴該班教師分辨兩組年齡之學員和派給各組的份數。

請把致主日學教師之信交予負責派「學員問卷」的主日學教師，盡量鼓勵他們幫忙。學員可取問卷回家，塡答時間約需廿五分鐘，塡妥後於下週交回該班主日學教師，(若有些學員忘記帶回，請他們於一週後補交，)教師收集後交給你。

請把「教師問卷」交予成人級主日學教師，請他們按其了解現時所教的一班成年(21 歲或以上)主日學學員的平均情況塡答，需時約廿五分鐘。若一班中兼有青少年(12-20 歲)和成年(21 歲或以上)的學員，則選擇其中的成年(21 歲或以上)學員爲塡答對象。教師可取問卷回家，塡妥後於下週交給你，若有些教師忘記帶回，請他們盡快補交。

之後請　閣下收集問卷、數點份數、和塡寫回條。收回問卷後，請勿翻閱答案，以助保密。鄙人約於三至四週後到　貴教會取回問卷。

謹對　閣下之協助，致以萬分謝意。

亞洲浸信會神學研究院博士生

張劉文昭敬上
一九九七年十月七日
聯絡電話：23368225
地址：九龍秀竹園道 17 號
七樓 C 座

回條

教會名稱：________________________________

交回 1. 成年(21 歲或以上)「學員問卷」 ________ 份

2. 青少年(12-20 歲)「學員問卷」 ________ 份

3.「教師問卷」 ________ 份

主日學部負責人：______________

日期：______________

若 閣下對這次問卷調查有任何意見，歡迎寫在下面，謝謝！

APPENDIX K

LETTER TO SUNDAY SCHOOL DIRECTORS OF CHURCHES DISTRIBUTING THE TEACHER QUESTIONNAIRES ONLY

敬愛的

鄙人現就讀於亞洲浸信會神學研究院之博士課程，主修宗教教育，督導教授爲譚司提反博士。承蒙　閣下俯允協助鄙人之研究工作，不勝感激。鄙人之研究乃關於香港浸信會主日學中的成年人(21 歲或以上)對學習之偏好和態度，並與青少年(12-20 歲)作比較。研究成果可供教會作參考，以便教會發展宗教教育。隨函奉上譚司提反教授和朱活平牧師之介紹信。

鄙人除了邀請一些香港浸信會堂會的成年、青少年主日學學員填答「學員問卷」和成人級主日學教師填答「教師問卷」外，玆誠邀　貴教會之成人級主日學教師填答「教師問卷」。

謹奉上「教師問卷」　　份，勞煩　閣下把「教師問卷」交予　貴教會之成人級主日學教師，盡量鼓勵他們幫忙。請他們按其了解現時所教的一班成年(21 歲或以上)主日學學員的平均情況填答，需時約廿五分鐘。若一班中兼有青少年(12-20 歲)和成年(21 歲或以上)的學員，則選擇其中的成年(21 歲或以上)學員爲填答對象。教師可取問卷回家，填妥後於下週交給你，若有些教師忘記帶回，請他們盡快補交。

之後請　閣下收集問卷、數點份數、和填寫回條。收回問卷後，請勿翻閱答案，以助保密。請於約四週內把回條及問卷以回郵信封寄回。

謹對　閣下之協助，致以萬分謝意。

亞洲浸信會神學研究院博士生

張劉文昭敬上
一九九七年十月　　日
聯絡電話：23368225
地址：九龍秀竹園道 17 號
七樓 C 座

回條

教會名稱：________________________________

交回「教師問卷」 ________ 份

主日學部負責人：______________

日期：______________

若　閣下對這次問卷調查有任何意見，歡迎寫在下面，謝謝！

APPENDIX L

LETTER TO ADULT SUNDAY SCHOOL TEACHERS OF PARTICIPATING CHURCHES

各位親愛的成人級主日學教師：

鄙人現就讀於亞洲浸信會神學研究院之博士課程，主修宗教教育，督導教授爲譚司提反博士。鄙人現正撰寫研究論文，內容乃關於香港浸信會成年人(21 歲或以上)對學習之偏好和態度，並與青少年(12-20 歲)作比較。研究成果可供教會作參考，以便教會發展宗教教育。

現懇請　閣下填答「教師問卷」一份，表達你對現時所教的成年(21 歲或以上)主日學學員的一般了解，特別是在學習之偏好和態度兩方面。請就你了解你所教的一班成年學員的平均情況填答，需時約廿五分鐘。

若　貴班中兼有青少年(12-20 歲)和成年(21 歲或以上)的主日學學員，請選擇其中的成年(21 歲或以上)學員爲填答對象。

閣下可取問卷回家填答，填妥後於下週交給　貴教會主日學部負責人。

閣下所提供之資料十分寶貴，謹對　閣下之協助，致以萬分謝意。

主內

張劉文昭敬上
一九九七年十月
聯絡電話： 23368225

APPENDIX M

LETTER TO SUNDAY SCHOOL TEACHERS DISTRIBUTING THE QUESTIONNAIRES TO STUDENTS OF YOUTH AND ADULT SUNDAY SCHOOLS OF PARTICIPATING CHURCHES

各位親愛的主日學教師：

鄙人現就讀於亞洲浸信會神學研究院之博士課程，主修宗教教育，督導教授爲譚司提反博士。鄙人現正撰寫研究論文，內容乃關於香港浸信會成年人(21歲或以上)對學習之偏好和態度，並與青少年(12-20歲)作比較。研究成果可供教會作參考，以便教會發展宗教教育。

現懇請　閣下把「學員問卷」派給　貴班主日學學員。若　貴班中兼有青少年(12-20歲)和成年(21歲或以上)兩組年齡的學員，請分辨出兩組年齡之學員，和按照　貴教會主日學部負責人的指引而派。

請盡量鼓勵學員填答，他們可取問卷回家，填答時間約需廿五分鐘，填妥後於下週交給你，(若有些學員忘記帶回，請他們盡快補交，)勞煩你收集，交　貴教會主日學部負責人。收回問卷後，請勿翻閱答案，以助保密。

謹對　閣下之協助，致以萬分謝意。

主內

張劉文昭敬上
一九九七年十月
聯絡電話： 23368225

APPENDIX N

DATA FROM ADULT LEARNER QUESTIONNAIRES

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AA001	170	1	3	1	3	1	13.00
AA002	186	1	2	1	3	1	6.00
AA003	206	1	3	2	3	1	7.00
AA004	233	0	4	3	3	1	3.00
AA005	188	1	3	1	3	1	14.00
AA006	204	0	3	2	3	1	15.00
AA007	214	0	3	2	3	1	10.00
AA008	190	0	3	2	3	1	2.00
AA009	238	0	2	2	4	1	34.00
AA010	253	0	3	2	3	1	1.00
AA011	194	0	3	2	4	1	12.00
AA012	251	0	2	3	3	1	25.00
AA013	186	0	1	1	3	1	25.00
AA014	175	1	3	2	4	1	28.00
AA015	233	1	1	2	3	1	10.00
AA016	196	1	2	8	4	1	2.00
AA017	219	1	2	2	3	1	99.00
AA018	201	1	2	2	3	1	13.00
AA019	228	1	2	2	3	1	20.00
AA020	239	1	2	2	3	1	13.00
AA021	201	1	5	2	3	1	99.00
AA022	225	1	3	2	3	1	20.00
AA023	202	1	2	1	2	1	4.00
AA024	246	1	2	2	2	1	12.00
AA025	197	1	3	2	3	1	10.00
AA026	213	1	4	2	2	1	2.00
AA027	211	1	3	2	2	1	7.00
AA028	195	1	4	2	2	1	6.00
AA029	179	1	2	1	3	1	2.00
AA030	196	1	4	2	3	1	7.50
AA031	175	1	2	1	3	1	5.00
AA032	174	1	2	1	3	1	5.00
AA033	178	0	2	1	3	1	6.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AA034	218	0	3	2	3	1	9.00
AA035	161	0	3	2	3	1	3.00
AA036	215	1	2	1	2	1	5.00
AA037	214	1	2	2	2	1	10.00
AA038	228	1	4	0	2	1	15.00
AA039	140	1	2	1	2	1	3.00
AA040	199	0	2	1	2	1	5.00
AA041	193	0	3	2	4	1	30.00
AA042	196	0	4	2	4	1	17.00
AA043	221	0	3	2	3	1	7.00
AA044	206	1	3	2	2	1	13.00
AA045	214	1	3	2	3	1	12.00
AA046	229	0	3	2	4	1	3.00
AA047	188	1	2	1	3	1	17.00
AA048	197	1	2	1	2	1	2.00
AA049	228	1	2	1	4	1	30.00
AA050	225	1	4	3	4	1	99.00
AA051	177	1	3	1	3	1	11.00
AA052	233	0	4	3	3	1	19.00
AA053	201	1	4	3	3	1	14.00
AA054	220	1	1	9	3	1	3.00
AA055	217	1	2	9	4	1	18.00
AA056	160	0	3	7	5	1	19.00
AA057	221	1	2	2	6	1	40.00
AA058	207	1	2	8	4	1	16.00
AA059	208	0	5	9	5	1	40.00
AA060	200	0	5	3	4	1	10.00
AA061	185	1	4	2	3	1	4.00
AA062	170	0	3	2	2	1	4.00
AA063	199	1	1	7	6	1	50.00
AA064	222	0	5	3	4	1	20.00
AA065	191	1	4	8	3	1	99.00
AA066	197	0	3	2	3	1	20.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AA067	206	1	4	2	4	1	20.00
AA068	197	1	4	2	3	1	14.00
AA069	187	1	2	8	4	1	20.00
AA070	201	1	1	8	6	1	50.00
AA071	187	1	3	1	2	1	2.00
AA072	179	0	2	9	2	1	2.00
AA073	239	0	4	2	4	1	10.00
AA074	211	1	5	2	3	1	6.00
AA075	220	1	3	2	3	1	13.00
AA076	210	1	3	2	2	1	5.00
AA077	202	1	4	0	2	1	7.00
AA078	164	1	4	9	2	1	6.00
AA079	202	1	4	2	2	1	12.00
AA080	234	1	3	2	3	1	2.00
AA081	187	1	4	0	2	1	8.00
AA082	219	1	2	1	3	1	10.00
AA083	222	1	2	1	2	1	12.00
AA084	189	1	4	0	2	1	7.00
AA085	171	0	2	1	4	1	8.00
AA086	206	1	2	1	3	1	99.00
AA087	237	1	2	9	3	1	2.00
AA088	200	1	2	1	2	1	10.00
AA089	176	1	2	8	4	1	99.00
AA090	195	1	4	2	2	1	1.00
AA091	216	0	3	2	3	1	10.00
AA092	209	1	2	8	3	1	1.00
AA093	201	1	2	8	3	1	2.00
AA094	212	1	5	2	3	1	6.00
AA095	211	1	4	2	2	1	9.00
AA096	212	1	3	1	3	1	9.00
AA097	218	1	4	0	2	1	12.00
AA098	211	0	2	2	3	1	10.00
AA099	217	0	4	2	3	1	6.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AA100	222	1	2	1	4	1	2.50
AA101	193	1	4	2	2	1	11.00
AA102	217	1	1	8	3	1	18.00
AA103	183	1	2	1	4	1	10.00
AA104	199	0	3	2	3	1	99.00
AA105	210	1	2	1	4	1	2.50
AA106	215	0	3	2	3	1	1.00
AA107	227	0	3	1	3	0	0.00
AA108	254	1	2	3	4	1	2.00
AA109	223	1	4	2	2	1	13.00
AA110	237	0	2	2	3	1	21.00
AA111	194	1	2	1	2	1	9.00
AA112	208	0	4	2	2	1	10.00
AA113	205	1	4	2	3	1	10.00
AA114	251	1	2	3	3	1	10.00
AA115	228	0	2	2	2	1	9.00
AA116	233	0	2	1	3	1	16.00
AA117	213	1	3	2	2	1	15.00
AA118	238	1	1	1	4	1	25.00
AA119	231	1	4	0	2	1	9.00
AA120	196	1	3	1	2	1	9.00
AA121	220	1	2	1	3	1	6.00
AA122	202	1	2	8	4	1	99.00
AA123	227	0	4	2	2	1	3.00
AA124	195	1	4	2	2	1	8.00
AA125	241	1	4	3	3	1	10.00
AA126	203	1	1	8	3	1	5.00
AA127	200	1	3	2	3	1	10.00
AA128	177	1	2	1	2	1	10.00
AA129	193	0	1	1	3	1	5.00
AA130	208	1	2	2	2	1	10.00
AA131	205	1	4	2	2	1	10.00
AA132	248	0	5	3	3	1	9.00

Adult Learner's Code No.	SDLRS Score	Gender	Education	Job Level	Age	Christian	
		M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AA133	240	0	3	2	4	1	20.00
AA134	243	1	2	2	3	1	5.00
AA135	242	1	2	2	3	1	9.00
AA136	187	1	2	1	2	1	6.00
AA137	223	1	3	2	3	1	18.00
AA138	202	1	2	2	3	1	16.00
AA139	224	1	2	2	3	1	20.00
AA140	164	1	2	2	3	1	19.00
AA141	191	0	2	1	3	1	20.00
AA142	197	1	4	2	3	1	20.00
AA143	222	1	3	3	3	1	14.00
AA144	216	0	3	2	4	1	12.00
AA145	223	1	5	0	3	1	8.00
AA146	195	1	3	2	4	1	5.00
AA147	164	1	2	8	4	1	12.00
AA148	193	1	1	8	3	1	4.00
AA149	246	1	2	2	4	1	11.00
AA150	218	0	2	1	5	1	11.00
AA151	193	1	2	8	4	1	7.00
AA152	215	0	2	1	4	1	4.00
AA153	200	0	1	2	4	1	99.00
AA154	202	1	2	1	4	1	20.00
AA155	190	1	2	8	4	1	1.00
AA156	197	0	3	2	4	1	1.00
AA157	218	0	5	3	5	1	36.00
AA158	243	1	4	8	4	1	30.00
AA159	221	0	4	3	4	1	34.00
AA160	204	0	3	2	4	1	2.00
AA161	191	0	2	1	4	1	5.00

Adult Learner's Code No.	SDLRS Score	Gender	Education	Job Level	Age	Christian	
		M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AB001	233	1	3	2	6	1	4.00
AB002	232	1	2	8	4	1	2.00
AB003	171	1	2	1	2	1	1.50
AB004	207	0	4	2	3	1	7.00
AB005	219	1	2	2	3	1	20.00
AB006	222	1	4	3	6	1	27.00
AB007	229	1	2	2	4	1	10.00
AB008	196	1	4	2	3	1	14.00
AB009	207	0	2	1	2	0	0.00
AB010	217	0	3	2	3	0	0.00
AB011	186	1	2	1	4	1	2.50
AB012	200	0	2	9	4	1	3.00
AB013	189	0	2	1	2	1	5.00
AB014	190	1	1	8	5	1	1.00
AB015	240	1	5	3	4	1	20.00
AB016	180	1	3	1	4	1	1.00
AB017	209	1	2	2	4	1	24.00
AB018	215	1	2	2	4	1	23.00
AB019	222	1	4	3	3	1	12.00
AB020	235	1	3	2	2	1	10.00
AB021	219	1	3	2	4	1	99.00
AB022	206	0	2	1	5	1	35.00
AB023	193	1	2	1	4	1	8.00
AB024	222	0	5	3	4	1	3.00
AB025	188	1	3	1	2	1	2.50
AB026	203	1	2	9	3	1	1.50
AB027	175	1	2	1	3	1	3.00
AB028	211	0	5	3	4	1	2.00
AB029	195	1	3	2	4	1	2.00
AB030	191	1	2	8	4	1	0.25
AB031	198	0	5	2	3	0	0.00
AB032	193	0	2	2	4	1	20.00
AB033	211	0	3	2	4	1	15.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AB034	205	0	2	2	4	1	10.00
AB035	196	0	4	2	4	1	20.00
AB036	236	0	4	3	4	1	9.00
AB037	182	0	3	2	4	1	30.00
AB038	220	0	5	3	6	1	50.00
AB039	234	1	4	8	6	1	40.00
AB040	153	1	2	8	3	1	19.00
AB041	210	1	3	1	3	1	15.00
AB042	250	0	4	3	4	1	20.00
AB043	218	1	2	8	4	1	2.00
AB044	192	1	4	2	4	1	99.00
AB045	178	1	3	2	2	1	2.00
AB046	227	0	2	2	4	1	6.00
AB047	209	1	2	8	4	1	17.00
AB048	222	1	4	3	4	1	18.00
AB049	192	1	2	1	4	1	99.00
AB050	183	0	2	2	4	1	20.00
AB051	234	1	4	8	3	1	20.00
AB052	183	1	2	8	4	1	20.00
AB053	180	1	1	8	3	1	3.00
AB054	158	1	1	8	4	1	30.00
AB055	172	1	1	8	4	1	30.00
AB056	175	1	2	1	3	1	7.00
AB057	175	1	3	2	3	1	16.00
AB058	206	1	4	9	4	1	30.00
AB059	194	1	1	9	4	1	99.00
AB060	233	1	2	2	4	1	19.00
AB061	210	0	4	2	2	1	5.00
AB062	221	0	3	3	4	1	15.00
AB063	177	1	2	1	3	1	2.00
AB064	179	0	2	1	3	1	15.00
AB065	195	1	2	1	4	1	30.00
AB066	216	0	1	1	4	1	99.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AB067	205	0	4	2	2	1	2.00
AB068	189	1	4	2	2	1	10.00
AB069	228	0	4	3	4	1	10.00
AB070	234	0	4	2	4	1	2.00
AB071	213	0	4	2	2	1	9.00
AB072	174	1	2	2	3	1	15.00
AB073	217	1	3	2	4	1	30.00
AB074	192	1	3	2	4	1	30.00
AB075	207	1	3	2	3	0	0.00
AB076	177	0	2	1	3	1	7.00
AB077	218	1	2	9	3	1	99.00
AB078	197	1	3	9	2	1	3.50
AB079	210	1	2	8	3	1	18.00
AB080	159	1	1	8	4	1	10.00
AB081	215	1	2	8	4	1	15.00
AB082	229	0	2	3	4	1	28.00
AB083	244	0	4	2	4	1	20.00
AB084	187	1	2	1	2	1	4.00
AB085	190	1	4	2	3	1	8.00
AB086	177	1	4	8	4	1	24.00
AB087	199	1	2	1	3	1	7.00
AB088	204	0	2	1	2	1	7.00
AB089	225	0	4	2	2	1	9.00
AB090	189	1	2	1	4	1	10.00
AB091	192	0	2	1	3	1	4.00
AB092	229	1	4	3	4	1	99.00
AB093	207	1	4	2	2	1	99.00
AB094	196	1	4	2	5	1	20.00
AB095	220	0	2	2	4	1	10.00
AB096	209	1	3	2	3	1	5.00
AB097	216	0	4	2	2	1	99.00
AB098	200	1	3	2	3	1	6.00
AB099	172	0	4	2	2	1	6.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AB100	184	0	3	1	2	1	7.00
AB101	182	1	3	1	4	1	2.00
AB102	212	1	2	8	3	1	4.00
AB103	221	1	3	2	3	1	11.00
AB104	203	1	2	1	3	1	0.50
AB105	192	1	2	1	3	1	0.50
AB106	174	0	3	1	2	1	1.50
AB107	203	0	3	2	3	1	10.00
AB108	226	1	3	2	3	1	18.00
AB109	196	1	2	1	3	1	18.00
AB110	197	1	2	1	3	1	2.00
AB111	228	1	3	2	4	1	30.00
AB112	173	1	3	1	4	1	6.00
AB113	239	0	5	3	4	1	20.00
AB114	220	1	4	2	4	1	25.00
AB115	221	1	2	8	3	1	8.00
AB116	184	0	5	2	4	1	20.00
AB117	200	1	5	2	3	1	2.00
AB118	158	1	2	1	4	1	1.00
AB119	176	1	2	8	4	1	4.00
AB120	231	0	3	3	6	1	20.00
AB121	221	1	3	2	3	1	16.00
AB122	239	1	4	0	2	1	7.00
AB123	179	1	3	2	2	1	99.00
AB124	221	1	4	2	2	1	6.00
AB125	227	1	3	3	3	1	5.00
AB126	204	0	2	2	6	1	8.00
AB127	237	1	4	7	6	1	60.00
AB128	204	1	2	8	3	1	12.00
AB129	256	1	5	3	3	1	20.00
AB130	206	0	5	2	5	1	8.00
AB131	236	1	3	3	3	1	30.00
AB132	241	1	3	2	5	1	30.00

Adult Learner's Code No.	SDLRS Score	Gender	Education	Job Level	Age	Christian	
		M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AB133	216	0	4	3	3	1	20.00
AB134	200	1	1	8	6	1	12.00
AB135	220	0	4	2	3	1	8.00
AB136	167	1	2	8	4	1	20.00
AB137	207	1	4	2	3	0	0.00
AB138	226	1	4	2	2	1	15.00
AB139	203	1	3	2	4	1	30.00
AB140	209	0	4	2	3	0	0.00
AB141	200	1	4	2	3	1	3.00
AB142	222	1	4	2	3	1	99.00
AB143	155	0	1	1	4	1	3.00
AB144	225	1	3	2	3	1	10.00
AC001	192	1	3	2	3	1	99.00
AC002	171	1	3	2	2	1	6.00
AC003	169	1	3	1	3	1	4.00
AC004	165	1	2	1	2	1	4.00
AC005	216	1	2	2	5	1	25.00
AC006	166	1	2	8	5	1	1.00
AC007	192	1	2	9	4	1	7.00
AC008	221	1	1	1	5	1	1.00
AC009	183	1	2	9	4	1	6.00
AC010	206	1	2	9	2	1	1.00
AC011	209	1	4	2	2	1	2.00
AC012	198	1	4	2	2	1	7.00
AC013	222	0	5	2	3	1	99.00
AC014	223	0	4	2	2	1	5.00
AC015	208	0	3	2	3	1	7.00
AC016	203	0	2	1	2	1	6.00
AC017	188	0	2	1	4	1	27.00

Adult Learner's Code No.	SDLRS Score	Gender	Education	Job Level	Age	Christian	
		M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AC018	255	0	4	2	2	1	10.00
AC019	198	0	3	2	3	1	9.00
AC020	188	0	4	2	2	1	7.00
AC021	236	1	3	2	4	1	10.00
AC022	215	1	3	2	4	1	99.00
AC023	230	1	3	2	5	1	99.00
AC024	190	1	3	2	3	1	22.00
AC025	227	1	3	2	3	1	14.00
AC026	207	0	3	2	4	1	6.00
AC027	213	0	3	2	4	0	0.00
AC028	212	0	3	2	3	1	20.00
AC029	211	0	1	1	5	1	12.00
AC030	250	1	4	3	3	1	5.00
AC031	191	1	3	1	6	1	40.00
AC032	210	1	2	1	3	1	3.00
AC033	202	0	4	2	2	1	5.00
AC034	196	0	2	2	5	1	32.00
AC035	201	1	1	1	4	1	99.00
AC036	197	0	4	2	2	1	4.00
AC037	187	0	4	2	2	1	5.00
AC038	212	0	3	3	5	1	99.00
AC039	196	1	3	2	3	1	10.00
AC040	215	1	2	2	4	1	10.00
AC041	194	1	3	2	4	1	20.00
AC042	235	1	3	3	3	1	99.00
AC043	184	0	4	2	2	1	5.00
AC044	229	1	2	2	4	1	20.00
AC045	140	0	2	1	4	1	99.00
AC046	213	0	4	2	2	1	5.00
AC047	187	0	2	1	2	1	7.00
AC048	242	1	3	3	3	1	18.00
AC049	210	0	4	2	3	1	99.00
AC050	184	1	4	2	3	1	14.00

Adult Learner's Code No.	SDLRS Score	Gender	Education	Job Level	Age	Christian	
		M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AC051	200	1	3	2	3	1	2.00
AC052	230	1	4	3	3	1	18.00
AC053	198	0	4	2	3	1	15.00
AC054	201	1	4	2	3	1	23.00
AC055	211	1	5	2	4	1	25.00
AC056	175	0	3	2	5	1	30.00
AC057	221	1	3	2	2	1	10.00
AC058	212	1	3	2	2	1	13.00
AC059	212	0	4	2	2	1	9.00
AC060	228	0	4	2	2	1	10.00
AC061	231	1	4	2	3	1	13.00
AC062	207	1	5	2	3	1	22.00
AC063	188	1	3	2	3	1	10.00
AC064	208	0	4	2	2	1	8.00
AC065	203	1	3	9	3	1	20.00
AC066	235	0	3	3	5	1	30.00
AC067	233	1	3	2	3	1	99.00
AC068	242	0	2	2	3	1	4.00
AC069	199	1	3	0	2	1	6.00
AC070	219	1	2	8	3	1	20.00
AC071	251	1	2	8	3	1	1.00
AC072	170	1	3	1	2	1	10.00
AC073	221	0	4	2	3	1	8.00
AC074	179	0	4	2	2	1	9.00
AC075	201	0	4	2	3	1	8.00
AC076	197	0	5	2	2	1	99.00
AC077	208	1	4	2	2	1	12.00
AC078	189	1	2	1	3	1	12.00
AC079	195	1	2	1	3	1	8.00
AC080	183	1	4	2	2	1	5.00
AC081	183	0	2	2	2	1	9.00
AC082	202	1	4	2	2	1	6.00
AC083	206	1	4	0	2	1	6.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AC084	217	1	4	2	2	1	4.00
AC085	204	1	4	0	2	1	4.00
AC086	205	0	4	0	2	1	1.50
AC087	233	1	4	2	2	1	8.00
AC088	225	1	4	2	3	1	20.00
AC089	188	0	4	2	4	1	20.00
AC090	217	1	4	3	4	1	18.00
AC091	190	0	2	2	6	1	30.00
AC092	215	0	4	2	2	1	8.00
AC093	219	0	2	2	5	1	20.00
AC094	199	1	2	8	5	1	25.00
AC095	206	1	4	2	2	1	4.00
AC096	239	1	5	3	4	1	35.00
AC097	185	1	1	7	6	1	7.00
AC098	160	1	1	9	6	1	12.00
AC099	201	0	3	2	4	1	28.00
AC100	202	0	4	3	3	1	8.00
AC101	200	1	4	2	3	1	2.00
AC102	204	1	4	8	3	1	16.00
AC103	198	0	5	2	3	1	15.00
AC104	209	1	2	2	5	1	7.00
AC105	154	0	2	7	6	1	7.00
AC106	194	1	3	2	3	1	7.00
AC107	229	1	3	3	4	1	14.00
AC108	212	0	3	2	4	1	3.00
AC109	160	1	1	9	6	1	20.00
AC110	206	1	3	2	3	1	2.00
AC111	210	1	2	2	2	1	10.00
AC112	155	1	2	9	6	1	3.50
AC113	223	1	2	1	5	0	0.00
AC114	183	0	2	1	2	1	3.50
AC115	194	1	2	2	4	1	15.00
AC116	212	0	3	1	6	1	2.50

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AC117	214	0	4	2	3	1	17.00
AC118	190	1	4	2	2	1	4.00
AC119	214	1	4	2	3	1	5.00
AC120	216	1	3	2	5	1	25.00
AC121	226	1	2	2	2	1	99.00
AC122	191	1	2	2	5	1	15.00
AC123	223	0	4	3	4	1	10.00
AC124	185	0	2	1	3	1	0.50
AC125	212	1	5	9	3	1	10.00
AC126	216	0	5	3	3	1	1.00
AC127	215	0	3	2	3	1	1.00
AC128	222	1	4	2	2	1	10.00
AC129	220	1	4	2	2	1	5.00
AC130	249	1	3	2	2	1	6.00
AC131	240	1	4	2	5	1	38.00
AC132	237	0	4	3	6	1	24.00
AC133	250	1	4	3	4	1	7.00
AC134	218	1	4	2	2	1	9.00
AC135	170	0	2	1	3	1	6.00
AC136	171	0	2	7	6	1	0.50
AC137	161	0	3	9	6	1	9.00
AC138	238	0	4	3	5	1	29.00
AC139	225	1	2	2	3	1	7.00
AC140	196	0	5	2	4	1	30.00
AC141	200	0	2	9	3	1	6.00
AC142	188	1	3	1	3	1	9.00
AC143	240	1	4	3	4	1	25.00
AC144	256	1	2	9	4	1	1.00
AC145	164	1	2	1	3	0	0.00
AC146	187	1	2	1	4	1	2.00
AC147	215	1	2	1	4	1	8.00
AC148	211	1	2	9	4	1	8.00
AC149	219	0	5	3	3	1	17.00

		Gender	Education	Job Level	Age	Christian	
Adult Learner's Code No.	SDLRS Score	M=0 F=1	primary=1 secondary=2 postsec=3 university=4 postgrad=5	low level=1 middle level=2 high level=3 student=0 retired=7 housewife=8 no answer=9	21-29=2 30-39=3 40-49=4 50-59=5 60 /+=6	Yes=1 No=0	No. of Years no answer=99
AC150	197	1	1	8	4	1	2.00
AC151	196	0	4	2	4	1	20.00
AC152	217	0	4	3	3	1	22.00
AC153	194	1	3	2	3	1	20.00
AC154	177	1	4	2	3	1	23.00
AC155	226	0	4	3	3	1	12.00
AC156	227	0	5	3	3	1	3.50
AC157	186	1	3	1	3	1	20.00
AC158	251	1	4	2	2	1	1.00
AC159	222	0	3	2	4	1	24.00
AC160	187	0	2	1	2	1	5.00
AC161	229	0	3	2	2	1	6.00
AC162	217	0	3	2	3	1	10.00
AC163	225	1	2	1	2	1	4.00

APPENDIX O

DATA FROM YOUTH LEARNER QUESTIONNAIRES

		Gender	Age	Christian		Education
Youth Learner's Code No.	SDLRS Score	M=0,F=1	12-15 =0 16-20 =1	Yes =1 No =0	No. of Years no answer=99	primary=1 secondary=2 postsec=3 university=4
YA001	158	1	0	1	8.00	2
YA002	188	1	0	0	0.00	2
YA003	265	1	1	1	0.08	2
YA004	140	1	1	1	9.00	2
YA005	162	1	0	1	4.00	2
YA006	196	0	0	1	5.00	2
YA007	188	0	0	0	0.00	2
YA008	190	1	1	1	99.00	3
YA009	193	1	1	1	99.00	2
YA010	192	1	1	1	5.00	4
YA011	171	1	0	1	2.00	2
YA012	203	1	0	1	9.00	2
YA013	180	0	0	1	8.00	2
YA014	188	1	0	1	4.00	2
YA015	185	0	0	0	0.00	2
YA016	176	0	0	0	0.00	2
YA017	170	0	1	1	3.00	2
YA018	206	1	1	1	7.00	2
YA019	192	0	1	1	10.00	3
YA020	184	1	1	1	2.00	2
YA021	165	1	1	1	10.00	4
YA022	212	0	0	1	12.00	2
YA023	209	0	0	1	5.00	2
YA024	202	1	0	1	12.00	2
YA025	200	1	0	1	5.00	2
YA026	197	1	0	1	3.00	2
YA027	234	1	1	1	5.00	3
YA028	218	1	1	1	7.00	4
YA029	196	1	1	1	5.00	2
YA030	187	1	1	1	3.00	2
YA031	226	0	1	1	7.00	2
YA032	186	0	1	1	2.00	2
YA033	221	0	1	1	2.00	2
YA034	217	1	1	1	4.00	2
YA035	207	0	1	1	18.00	2
YA036	193	1	1	1	99.00	2
YA037	193	0	1	1	2.00	2

		Gender	Age	Christian		Education
Youth Learner's Code No.	SDLRS Score	M=0,F=1	12-15 =0 16-20 =1	Yes =1 No =0	No. of Years no answer=99	primary=1 secondary=2 postsec=3 university=4
YA038	195	1	1	1	6.00	2
YA039	198	1	1	1	7.00	2
YA040	180	0	1	1	7.00	4
YA041	189	0	1	1	7.00	3
YA042	173	1	1	1	8.00	4
YA043	182	1	1	1	6.00	2
YA044	208	1	1	0	0.00	2
YA045	205	0	1	1	99.00	2
YA046	175	1	1	1	4.00	2
YA047	184	0	1	1	4.00	2
YA048	207	0	1	1	5.00	2
YA049	249	1	1	1	5.00	2
YA050	177	1	1	0	0.00	4
YA051	200	0	1	1	7.00	3
YB001	189	0	1	1	0.50	2
YB002	207	1	1	1	2.00	2
YB003	186	1	1	1	6.00	4
YB004	183	0	1	1	7.00	2
YB005	169	1	1	1	8.00	2
YB006	181	1	1	1	7.00	2
YB007	248	0	1	1	6.00	2
YB008	184	1	1	1	5.00	2
YB009	178	1	1	1	10.00	4
YB010	189	0	1	1	9.00	4
YB011	215	0	1	1	6.00	4
YB012	177	0	1	1	6.00	4
YB013	187	0	1	1	8.00	2
YB014	159	1	0	1	4.00	2
YB015	210	1	1	1	99.00	2
YB016	210	1	1	1	7.00	2
YB017	175	1	1	1	99.00	2
YB018	190	0	1	1	8.00	2
YB019	200	0	1	1	99.00	2
YB020	183	0	1	0	0.00	2

		Gender	Age	Christian		Education
Youth Learner's Code No.	SDLRS Score	M=0,F=1	12-15 =0 16-20 =1	Yes =1 No =0	No. of Years no answer=99	primary=1 secondary=2 postsec=3 university=4
YB021	191	0	1	1	7.00	2
YB022	172	0	1	1	8.00	2
YB023	237	0	0	1	3.00	1
YB024	185	1	0	1	99.00	2
YB025	202	0	0	1	2.00	2
YB026	174	1	0	1	99.00	2
YB027	186	0	0	1	99.00	2
YB028	161	0	0	1	2.00	2
YB029	205	1	0	1	2.00	2
YB030	173	0	0	1	2.00	2
YB031	199	0	0	1	13.00	2
YB032	173	1	0	1	10.00	2
YB033	164	0	0	1	99.00	2
YB034	201	0	0	1	15.00	2
YB035	221	1	0	1	4.00	2
YB036	190	1	0	1	5.00	2
YB037	176	1	0	1	9.00	2
YB038	215	1	0	1	4.00	2
YB039	228	1	0	1	3.00	2
YB040	179	0	1	1	99.00	2
YB041	193	0	1	1	7.00	2
YB042	185	0	0	1	2.00	2
YB043	165	0	0	1	99.00	2
YB044	186	1	1	1	10.00	4
YB045	235	0	1	1	15.00	2
YB046	235	0	1	1	13.00	2
YB047	207	1	1	1	5.00	2
YB048	186	0	1	1	2.00	4
YB049	169	1	1	1	2.00	2
YC001	220	1	1	1	3.00	2
YC002	215	1	1	1	3.00	2
YC003	217	1	1	1	3.00	2
YC004	194	0	1	1	6.00	2
YC005	200	1	1	1	12.00	2

		Gender	Age	Christian		Education
Youth Learner's Code No.	SDLRS Score	M=0,F=1	12-15 =0 16-20 =1	Yes =1 No =0	No. of Years no answer=99	primary=1 secondary=2 postsec=3 university=4
YC006	170	1	1	1	3.00	2
YC007	202	1	1	1	1.00	2
YC008	175	1	1	1	1.00	4
YC009	181	1	1	1	1.00	2
YC010	204	0	0	1	13.00	2
YC011	179	0	0	1	14.00	2
YC012	178	1	1	1	5.00	2
YC013	213	0	1	1	4.00	2
YC014	183	1	0	1	1.00	2
YC015	192	0	0	1	2.00	2
YC016	191	0	1	1	6.00	2
YC017	171	0	1	1	18.00	2
YC018	202	1	1	1	10.00	2
YC019	214	0	1	1	6.00	2
YC020	165	0	0	1	10.00	2
YC021	233	1	1	1	9.00	2
YC022	196	0	0	1	99.00	2
YC023	165	1	0	1	99.00	2
YC024	188	1	1	1	1.00	2
YC025	195	0	1	1	3.00	2
YC026	163	1	1	1	2.00	4
YC027	178	0	0	1	4.00	2
YC028	207	1	0	1	6.00	2
YC029	171	1	1	1	3.00	3
YC030	194	0	0	1	99.00	2
YC031	211	0	1	1	6.00	2
YC032	190	1	0	1	99.00	2
YC033	190	1	0	1	99.00	2
YC034	181	1	0	1	99.00	2
YC035	227	1	1	1	2.50	2
YC036	179	1	1	1	0.50	2
YC037	193	0	1	1	5.00	2
YC038	184	0	1	1	5.00	2
YC039	201	1	1	1	1.00	3
YC040	203	0	1	1	5.00	2

APPENDIX P

DATA FROM TEACHER QUESTIONNAIRES

Teacher's Code No.	Rating of Adult Learners' SDLRS Score	Teaching Adult Sunday School No. of Years no answer=99	Adult Sunday School Teacher Training Yes=1, No=0	Know Knowles' Theory Yes=1, No=0 no answer=9
TD001	173	3.00	1	9
TD002	164	1.50	1	0
TD003	208	15.00	1	0
TD004	218	12.00	1	0
TD005	199	5.00	1	0
TD006	175	0.30	1	0
TD007	211	10.00	1	0
TD008	192	1.50	1	0
TD009	209	23.00	1	0
TD010	226	1.00	1	0
TD011	167	99.00	0	0
TD012	192	4.00	1	0
TD013	217	3.00	0	0
TD014	169	0.04	0	0
TD015	174	6.00	1	0
TD016	164	3.00	1	0
TD017	186	6.00	1	0
TD018	132	1.50	1	1
TD019	216	22.00	0	0
TD020	177	0.04	0	0
TD021	170	0.50	0	0
TD022	141	0.30	0	0
TD023	187	7.00	0	0
TD024	216	3.00	1	0
TD025	210	6.00	0	1
TD026	191	7.00	0	0
TD027	214	3.00	0	0
TD028	198	3.00	0	0
TD029	170	10.00	0	0
TD030	157	3.00	1	0
TD031	175	15.00	0	0
TD032	164	14.00	1	1
TD033	145	6.00	1	0
TD034	174	10.00	1	0
TD035	196	10.00	0	0
TD036	190	1.50	0	0

Teacher's Code No.	Rating of Adult Learners' SDLRS Score	Teaching Adult Sunday School No. of Years no answer=99	Adult Sunday School Teacher Training Yes=1, No=0	Know Knowles' Theory Yes=1, No=0 no answer=9
TD037	185	4.00	0	0
TD038	192	4.00	0	0
TE001	166	99.00	0	0
TE002	187	99.00	1	9
TE003	169	10.00	0	0
TE004	194	12.00	0	0
TE005	191	10.00	1	0
TE006	221	5.00	0	0
TE007	177	10.00	1	0
TE008	175	5.00	1	0
TE009	155	1.00	0	0
TE010	172	6.00	1	0
TE011	179	3.00	1	0
TE012	171	16.00	0	0
TE013	164	10.00	1	0
TE014	199	7.00	1	1
TE015	189	7.00	1	0
TE016	193	1.00	1	0
TE017	171	0.30	0	0
TE018	185	0.25	0	0
TE019	200	10.00	0	0
TE020	154	3.00	0	0
TE021	163	2.00	0	1
TE022	185	3.00	0	0
TE023	139	2.50	0	0
TE024	136	0.17	0	0
TE025	124	8.00	0	0
TE026	147	1.00	0	0
TE027	214	2.00	1	0
TE028	161	10.00	1	0
TE029	170	7.00	1	0
TE030	184	13.00	1	0
TE031	152	0.50	0	0

Teacher's Code No.	Rating of Adult Learners' SDLRS Score	Teaching Adult Sunday School No. of Years no answer=99	Adult Sunday School Teacher Training Yes=1, No=0	Know Knowles' Theory Yes=1, No=0 no answer=9
TE032	206	10.00	1	0
TE033	211	10.00	1	0
TE034	211	10.00	0	0
TE035	200	12.00	1	0
TE036	171	0.42	1	0
TE037	145	7.00	1	0
TE038	207	0.50	0	0
TE039	174	6.00	1	0
TE040	192	15.00	0	0
TE041	170	5.00	0	0
TF001	200	10.00	0	0
TF002	191	11.00	1	0
TF003	226	7.00	0	0
TF004	196	5.00	0	0
TF005	179	6.00	1	0
TF006	210	2.00	0	0
TF007	177	3.00	0	0
TF008	150	5.00	1	0
TF009	178	3.00	1	0
TF010	162	10.00	1	1
TF011	174	99.00	0	0
TF012	183	1.00	0	0
TF013	224	2.00	0	0
TF014	177	3.00	0	0
TF015	158	3.00	0	0
TF016	173	17.00	0	9
TF017	155	0.50	0	0
TF018	181	6.00	1	9
TF019	200	8.00	0	0
TF020	189	8.00	1	0
TF021	235	3.00	0	0
TF022	179	5.00	1	0
TF023	134	10.00	1	0

Teacher's Code No.	Rating of Adult Learners' SDLRS Score	Teaching Adult Sunday School No. of Years no answer=99	Adult Sunday School Teacher Training Yes=1, No=0	Know Knowles' Theory Yes=1, No=0 no answer=9
TF024	204	10.00	1	0
TF025	181	20.00	1	0
TF026	220	2.00	1	0
TF027	139	5.00	0	0
TF028	220	7.00	1	0
TF029	205	7.00	0	0
TF030	159	4.00	0	0
TF031	161	2.00	0	0
TF032	152	18.00	1	0
TF033	165	2.00	1	0
TF034	178	99.00	0	0
TF035	167	10.00	0	0
TF036	195	3.00	0	0
TF037	175	10.00	1	0
TF038	185	1.00	0	0
TF039	165	7.00	1	0
TF040	164	8.00	1	0
TF041	181	2.00	0	0

ABSTRACT

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Degree: Doctor of Theology

Year: 1999

Title: A Study of the Relationship between Adults' Self-directed Learning Readiness and Selected Variables in Sunday Schools of Hong Kong Chinese Baptist Churches

Problem

The problem of this study was to determine the relationship between adults' self-directed learning readiness and selected variables in Sunday Schools of Hong Kong Chinese Baptist churches. The selected variables were: (a) teachers' ratings of self-directed learning readiness of adult learners; (b) youth's self-directed learning readiness; (c) adults' genders; (d) adults' education levels; (e) adults' job levels.

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Procedure

The Sunday Schools of twenty-five Baptist churches participated in the survey. The Chinese version of Self-Directed Learning Readiness Scale-Form A was used for learner's self-rating of one's self-directed learning readiness. This questionnaire was modified to become the teacher's rating scale of his or her adult students' self-directed learning readiness. A total of 468 adult learners, 140 youth learners, and 120 teachers responded to the questionnaires. Five major hypotheses and additional analysis were tested with statistical tests, including t-tests, chi-square tests, and analyses of variance.

Results

The following results were obtained: (1) The self-directed learning readiness mean score of adult learners' self-ratings was higher than that of teachers' ratings of the adult learners. (2) Adults exhibited higher self-directed learning readiness scores than youth. (3) There was no significant difference in self-directed learning readiness mean scores between genders of adults. (4) The adults' self-directed learning readiness scores had positive relationships with their education levels and job levels.

Additional analysis showed that most adult Sunday School teachers had either inadequate training or no training.

Recommendations were made to enhance the self-directed learning readiness of adult learners from five aspects: instructors, adult learners, methods of instruction, church administration, and Chinese educators. Further research on the motivations of adult learners to join Sunday Schools, the quality of adult Sunday School teacher training, and the Chinese learning approaches was suggested.

BIOGRAPHICAL DATA

Name: Man-Chiu Lau CHEUNG
Sex: Female
Year of Birth: 1945
Nationality: Chinese
Church: 1958-1972: Evangelical Free Church of China
1972-now: Kowloon Methodist Church

Education:

1969	B.Sc., University of Hong Kong
1974	Diploma in Theology, Discipleship Training Center, Singapore
1975	Diploma in Education, University of Hong Kong (Credit in Theory and Practical Teaching)
1992	Master of Divinity, China Graduate School of Theology

Employment Record:

1970-72	Staff Worker, Fellowship of Evangelical Students, Hong Kong
1975-88	Secondary school teacher
1988-90	Secondary school principal
1992-97	Lecturer, Bible Seminary of Hong Kong

Teaching Experience:

- Secondary school science subjects and biblical knowledge
- Introduction to Christian Religious Education, Teaching Methods, Children Christian Education, Youth Christian Education, Adult Christian Education, Family Christian Education
- Hermeneutics, Biblical subjects

Administrative Experience:

Duties at secondary schools
- Prefect of Religious Education
- Chemistry Panel Chairman
- Member of Administrative Panel
- Prefect of Academic Studies
- Principal

Duties at Bible Seminary of Hong Kong
- Director of Administrative Department and Director of Development Department
- Member of Administrative Panel

Award and In-Service Training:

Award for Distinguished Service in Christian Education, Schools for Christ Foundation

Certificate of Secondary School Administration, Course for Principals, Hong Kong Education Department

Christian Service:

Chairman of Inter-College Christian Fellowship

Advisor of youth fellowship

Sunday School Teacher of adult Bible class

Church Board Member

Invited Preacher at various churches

Chief Examiner of Ethics and Religious Studies at Advanced Supplementary Level, Hong Kong Examinations Authority

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